

SGC Statement of Position and Written Comments
Unilateral Administrative Order for Remedial Investigation
Docket No. CERCLA-08-2018-0005

April 11, 2018

Table of Contents:

I.	Executive Summary	1
II.	Summary of Background Facts	2
III.	SGC is Not Factually or Legally Liable for Any Impacts to Waters in OU3.....	3
	A. Factually, SGC Has Had a Positive Impact on the Animas River	3
	B. Legally, SGC is Not Liable for OU3	4
IV.	The Primary Party with Liability in OU3 is the Federal Government.....	7
V.	The Federal Government Should be Financially Responsible for any Investigation in OU3.....	9
VI.	The UAO is Illegal.....	10
	A. There is No Release of a Hazardous Substance or Any Imminent and Substantial Endangerment, and There is No Threat to Human Health, Welfare, or the Environment for Which SGC is Responsible.	10
	B. The Engineered Bulkheads are Stable and Performing as Intended, and There is No Evidence to the Contrary	12
	C. The Ordered Drilling is Not Justified and Excavation Could Compromise the Integrity of the Currently Functioning Bulkheads with No Potential Benefit.....	13
	D. The Ordered Installation of Two Meteorological Stations is Technically Suspect and of Questionable Value.....	15
	E. Water Quality Can be Improved Now and There is No Need for Unnecessary Study	16
	F. The UAO Targets Naturally Occurring Conditions—A Prohibited Course of Action Under CERCLA.....	17
	G. The UAO is Not Consistent with the National Contingency Plan.....	18
	H. EPA’s Conflict of Interest and Deprivation of SGC's Due Process	20
VII.	Additional UAO Comments	22
	A. UAO Conclusions of Law.....	22
	B. UAO Findings of "Fact"	22
	1. EPA Ignores the Natural Condition	22
	2. EPA Misconstrues SGC's History of Mining	24
	3. EPA Fundamentally Misunderstands or Purposefully Misconstrues the Purpose and Effect of Bulkheading	24
	4. SGC is Not Liable for Mine Portal Releases	26

5.	EPA's Water Quality Characterization is Not Sufficient	26
6.	EPA Attempts to Diminish the Import of the Consent Decree	26
C.	UAO Miscellaneous Provisions	26
1.	The Financial Assurance Provision is Unworkable and Counterproductive	26
2.	The Provision of Information Requirements are Unjust	27
3.	The UAO and Statement of Work are Overbroad, and Their Objectives and Ordered Work are Vague and Undefined	27
4.	The UAO and Statement of Work Order Unworkable Timelines that Compromise the Ability to Ensure Well Thought Out and Safe Work	28
5.	The Statement of Work Coupled with the Definition of OU3 Creates Irrational Results	28
VIII.	SGC Reservation of Rights, Claims, and Defenses	29
IX.	Conclusion	29
	APPENDIX A: BRIEF HISTORY OF SGC, EPA, AND BULKHEADING	30
	APPENDIX B: BRIEF HISTORY OF SGC / EPA INTERIOR MINE WORKING INTERACTIONS	36
	APPENDIX C, D, E, F, G, AND H INDEX	39

SGC Statement of Position and Written Comments

I. Executive Summary

Sunnyside Gold Corporation (SGC) submits this statement of position and written comments in response to the Unilateral Administrative Order for Remedial Investigation (UAO) the United States Environmental Protection Agency (EPA) issued to SGC on March 15, 2018. SGC respectfully requests that EPA reconsider issuance of the UAO. SGC is not factually or legally liable for water quality issues in the Animas River, and it would be a gross abuse of power for EPA to make the UAO effective. It would be especially unjust for EPA to order SGC to undertake costly academic investigations of groundwater while EPA neglects to run the water treatment plant at Gladstone to its full capacity, causing acidic metals-laden water to travel around the treatment plant and directly into Cement Creek. By not running the Gladstone plant to capacity, EPA has, since October 2015, allowed well in excess of 350 million gallons of acidic metals-laden water to enter Cement Creek and eventually the Animas River. These untreated waters are coming directly from the EPA operated Red & Bonita portal and the federal government owned American Tunnel portal. At the same time EPA elects not to treat acidic metals-laden water that it could easily treat, EPA admits that it intends to “explor[e] innovative approaches” and “test...innovative technologies.”¹ This is a dubious choice by an Agency charged with protecting the environment, and it would be truly unconscionable for EPA to force SGC to fund EPA’s giant speculative science project while the Agency willfully ignores a solution that can immediately improve water quality.

SGC's five years of environmentally permitted and responsible mining and thirty years of reclamation and remediation in the Silverton Caldera have positively impacted water quality in the Animas River.

[I]t is incontrovertible that the actions of SGC have substantially reduced acid rock drainage and metals loading in the Animas from what would have otherwise been the case.²

SGC’s operating permits and the 1996 EPA endorsed and Colorado District Court approved Consent Decree provide a complete legal defense to liability. SGC fully satisfied its remedial obligations under the Consent Decree. Any SGC discharges to the environment were federally permitted. In addition, because EPA was well aware of and applauded the Consent Decree and its watershed approach to remediation, claims against SGC are barred by the statute of limitations.

SGC has a long history of cooperating with EPA, Colorado, and other stakeholders to improve Animas River water quality and has demonstrated a willingness to undertake extensive remedial

¹ U.S. EPA, *Bonita Peak Mining District Innovative Technologies* (March 2018); available at: <https://semsub.epa.gov/work/08/100003642.pdf>.

² *SGC Mining and Reclamation Activities and Metals Loading in the Animas River* (Steven Lange, M.S., Senior Project Manager, Knight Piesold Consulting, Jan. 2018).

work where appropriate and justified. The UAO, however, is neither appropriate, legal, nor justified. SGC is not a proper party to the UAO. SGC has more than sufficient cause to not comply with the UAO. It is indefensible for EPA to claim that there are “no . . . federal . . . entities that have the funding resources to perform the remedial investigation at OU3,”³ force SGC to spend money on dangerous, environmentally destructive, academic studies, and then require SGC to file suit to recover those same dollars from the federal government. Nevertheless, in the event EPA insists on making the UAO effective, SGC will be forced to comply with the UAO given the overbearing coercive power of the federal government. SGC will then file suit against the federal government in order to ensure that all funds SGC expends under the UAO are rightfully reimbursed to SGC.

II. Summary of Background Facts

Operable Unit 3 (OU3) lies within the Silverton Caldera. The Caldera is highly mineralized, and acid rock drainage and poor water quality were prevalent long before the advent of mining. The Caldera hosted hundreds of mines and dozens of mills between the 1870s and 1985. SGC was formed and acquired the Sunnyside Mine in 1985 and mined from 1986 until 1991, using modern techniques and under the modern era of environmental regulation. SGC never owned or operated the Red & Bonita or the Gold King Mines.

SGC closed the Sunnyside Mine in accordance with the law, its permits and a Colorado state District Court approved Consent Decree. SGC has spent \$30 million on reclamation and remediation, much of it on properties SGC never owned or operated. As part of the work under the Consent Decree, SGC constructed twelve bulkheads, including those at the American Tunnel, Terry Tunnel, and Gold Prince. Several of these bulkheads served to isolate the Interior Workings of the Sunnyside Mine and contain any mine-impacted water. (EPA refers to the Interior Workings of the Sunnyside Mine as the “Mine Pool.”) In addition to the bulkheads, the mine-impacted water contained in the Interior Workings was treated with several hundred tons of lime. The state regulator approved and EPA endorsed the bulkheading of the Interior Workings of the Sunnyside Mine, which was always expected to return the local water table towards natural levels. As that process unfolded, natural discharges from some adits and springs resumed, exactly as anticipated.

The engineered concrete bulkheads are stable and performing as designed to isolate the Interior Workings of the Sunnyside Mine. EPA has presented zero evidence to suggest otherwise. Before August 5, 2015, EPA had determined not to list any properties in the Silverton area on the National Priorities List (NPL). Unfortunately, on August 5, 2015, EPA and its contractors caused the release of millions of gallons of impacted waters from the Gold King Mine. Shortly thereafter, EPA proposed listing the entire so-called Bonita Peak Mining District (BPMMD) on the NPL, and thereafter made the listing. The Sunnyside Mine lies within the 100,000 plus acre site listed by EPA. The Sunnyside Mine, however, was never scored pursuant to EPA’s Hazard Ranking System, was only listed as a “Study Area,” and was not identified as one of the 46 designated “sites” or “sources” within the listed area. EPA has presented neither evidence nor any rational reason to believe that there has been any release of any hazardous substance from the Interior

³ Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site*, § V(17)(f)(2) (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

Workings of the Sunnyside Mine. Seeps and springs that resumed when the local water table returned to natural levels were fully anticipated and permitted pursuant to the Consent Decree.⁴

III. SGC is Not Factually or Legally Liable for Any Impacts to Waters in OU3

SGC is not factually or legally liable for water quality issues in OU3 or the Animas River. SGC is not a proper party to the UAO.

A. Factually, SGC Has Had a Positive Impact on the Animas River

SGC conducted its five years of mining pursuant to regulatory permits using modern mining techniques and under the modern era of environmental law and regulation. SGC has engaged in more than thirty years of reclamation and remediation in the Silverton Caldera. It is "incontrovertible that the actions of SGC have substantially reduced acid rock drainage and metals loading in the Animas from what would have otherwise been the case."⁵

SGC's permit for operation of the Sunnyside Mine called for bulkheading as part of overall mine reclamation. The State of Colorado recognized that the Sunnyside Mine offered an ideal location for bulkhead installation and the bulkheading process would serve to isolate the Interior Workings of the Mine. By sealing the mine workings from oxygen, the generation of acid rock drainage would be reduced and overall water quality improved. SGC had the bulkheads designed by John Abel of the Colorado School of Mines, a world renowned expert in bulkhead design and installation. Over the course of several years, a series of bulkheads were installed in the American Tunnel, Terry Tunnel, and several neighboring mines to both isolate the workings of the Sunnyside Mine and to control overall discharge.

In addition to bulkheading, from 1985 until 2003, SGC treated the entire American Tunnel discharge and stored the resulting residue at the Mayflower Impoundments, even though not all of the discharge was generated from SGC property. In addition, from 1996 until 2003, SGC treated the entire flow of Cement Creek for nine months each year, removing thousands of pounds of metals from this Animas River tributary, again even though there were significant natural and third party sources of metals to the Creek. This Cement Creek treatment addressed the total impact of upper Cement Creek to the Animas River, both natural and mining related.⁶

SGC's treatment of Cement Creek between August of 1996 and December of 2002 removed over 326,000 pounds of metal from the Creek. Over this same period, SGC's treatment of water discharging from the American Tunnel prevented approximately 290,000 pounds of metals from entering the Creek. As a result, Cement Creek below the treatment plant had less metals loading than the Creek would have had under natural baseline conditions.⁷

⁴ See Appendices A and B for additional background facts regarding SGC, EPA, bulkheading, and the UAO.

⁵ *SGC Mining and Reclamation Activities and Metals Loading in the Animas River* (Steven Lange, M.S., Senior Project Manager, Knight Piesold Consulting, Jan. 2018).

⁶ *SGC Mining and Reclamation Activities and Metals Loading in the Animas River* (Steven Lange, M.S., Senior Project Manager, Knight Piesold Consulting, Jan. 2018).

⁷ *SGC Mining and Reclamation Activities and Metals Loading in the Animas River* (Steven Lange, M.S., Senior Project Manager, Knight Piesold Consulting, Jan. 2018).

From 1986 until 1996 when SGC installed an additional bulkhead, SGC also operated a treatment plant at the Terry Tunnel and removed “thousands of additional pounds of potential contaminants.”⁸ SGC has also offered, on multiple occasions, to provide EPA with a repository for materials generated from EPA's Gladstone water treatment plant.⁹

SGC has also reclaimed and remediated the Mayflower Impoundments and Mayflower Mill area, removed 112,000 cubic yards of historic finely ground tailings from the banks and floodplain of the Animas River and its tributaries, removed 80,000 tons of mostly historic mine waste and tails from the American Tunnel area, opened a caved adit and removed 32,000 cubic yards of mine waste and pond sediments and added neutralizing materials in the Longfellow and Koehler area, removed 5,700 cubic yards of tailings from the Boulder Creek and Animas River flood plain, excavated 84,000 cubic yards of historic tailings and relocated 45,000 cubic yards of tailings at the Pride of the West, relocated 27,000 cubic yards of tailings and neutralized the area at the Lead Carbonate, installed two closure bulkheads and relocated historic tails and ash piles at the Gold Prince, bulkheaded the Ransom adit, placed 240,000 cubic yards of clean fill to cover the Lake Emma subsidence area and to create positive drainage, funded the placement of bulkheads in the Mogul Adit and Koehler Tunnel, and removed tailings along the Animas River in the vicinity of the old Power Plant.¹⁰ All of these actions directly improved water quality in the basin, and many were conducted at properties that SGC never owned or operated.

Finally, SGC has voluntarily partnered with the Animas River Stakeholders Group (ARSG) to evaluate and implement various remediation projects since 1994. Among other things, these efforts resulted in the removal of 70% of the copper and 50% of the zinc loading to Mineral Creek.¹¹

It is “incontrovertible that the actions of SGC have substantially reduced acid rock drainage and metals loading in the Animas from what would have otherwise been the case.”¹²

B. Legally, SGC is Not Liable for OU3

Legally, any release that was contemplated under SGC's regulatory permits or by the Consent Decree and corresponding bulkheads constitutes a federally permitted release and is therefore non-actionable. Any such release was contemplated, reviewed, and approved by the relevant state agencies, the Colorado Attorney General's office, and the Colorado State District Court. The entire bulkheading exercise was endorsed by EPA and is consistent with CERCLA.

⁸ *SGC Mining and Reclamation Activities and Metals Loading in the Animas River* (Steven Lange, M.S., Senior Project Manager, Knight Piesold Consulting, Jan. 2018).

⁹ SGC and EPA, Correspondence and Offers Regarding Sludge Repository (2016).

¹⁰ *SGC Mining and Reclamation Activities and Metals Loading in the Animas River* (Steven Lange, M.S., Senior Project Manager, Knight Piesold Consulting, Jan. 2018).

¹¹ *SGC Mining and Reclamation Activities and Metals Loading in the Animas River* (Steven Lange, M.S., Senior Project Manager, Knight Piesold Consulting, Jan. 2018).

¹² *SGC Mining and Reclamation Activities and Metals Loading in the Animas River* (Steven Lange, M.S., Senior Project Manager, Knight Piesold Consulting, Jan. 2018).

Significantly, SGC is not the current owner or operator of any of the engineered bulkheads in the American Tunnel nor the Tunnel itself, including the American Tunnel's portal.¹³ SGC is also not the current owner or operator of the Gold Prince bulkheads. To establish liability as a former owner/operator or arranger, moreover, EPA must demonstrate that there was a disposal of a hazardous substance at the facility.¹⁴ Such a showing was not, and cannot, be made.

In 1975, EPA approved Colorado's plan for administering the discharge permit program under Section 402 of the Clean Water Act.¹⁵ The authority to issue and enforce permits for discharges to surface waters was vested in the Colorado Water Quality Control Division (WQCD) within the Colorado Department of Public Health and Environment (CDPHE).¹⁶ The WQCD is responsible for issuance and enforcement of permits authorizing point source discharges to surface waters of the State of Colorado.¹⁷ Thus, any discharge approved by the WQCD or contemplated by the Consent Decree is a discharge or release permitted by EPA. Given that EPA vested its regulatory authority over clean water in the State of Colorado, and the State of Colorado permitted and approved of every action SGC undertook, including installing numerous bulkheads to isolate the Interior Workings of the Sunnyside Mine, SGC's actions cannot now be the subject of a response action by EPA.

Any discharges from SGC owned property or SGC related operations were conducted under the oversight of the State of Colorado pursuant to delegated EPA authority, and were therefore federally permitted releases. As part of SGC's mining permit from the Division of Reclamation, Mining and Safety (DRMS), SGC was required to protect water quality and comply with all water quality requirements.¹⁸ SGC's permit was subject to public review and comment, including review by the WQCD. SGC activity was also subject to WQCD jurisdiction for storm water and point source discharge permits. Both DRMS and WQCD had authority to address releases that might impact water quality. There was never a release from any SGC operations that was not covered by some regulatory provision. Accordingly, with respect to any such release, SGC is not liable and cannot be a responsible party under CERCLA.

With respect to the bulkheads themselves, SGC is not the current owner or operator of any of the engineered bulkheads in the American Tunnel, nor of the Tunnel itself. SGC has no owner/operator liability for any release from the Tunnel nor any obligation to fund any exploration of the Tunnel to inspect and monitor the bulkheads. Bulkhead No. 1 was installed in the American Tunnel beyond SGC's Sunnyside Mine property line, within the Gold King Extension Patented Claim (M.S. 19965). The current owner of Bulkhead No. 1 is a private third party not named in the UAO. Bulkhead No. 2 was installed approximately 2000 feet from the American Tunnel portal, within the Portland Consolidated Patented Claim (M.S. 13330). The current owner of Bulkhead No. 2 is also a private third party not named in the UAO. Bulkhead No. 3 was installed on federal

¹³ The American Tunnel ends at SGC's fee property line. From that point east is the Sunnyside Main Level of the Interior Workings. Although Bulkhead No. 1 is not owned by SGC, it sealed the Interior Workings from the American Tunnel.

¹⁴ 42 U.S.C. § 9607(a)(2)-(3).

¹⁵ 40. Fed. Reg. 16713 (April 14, 1975).

¹⁶ 5 Colo. Code Regs. § 1002-61.3(1).

¹⁷ See e.g. 5 Colo. Code Regs. §§ 1002-61.4(1), 61.5, 61.6, 61.8, 61.16.

¹⁸ See Colo. Rev. Stat. Ann. § 34-32-116(7)(c), (g); 2 Colo. Code Regs. § 407-1:3.6(1)(b).

land managed by the Bureau of Land Management (BLM). BLM is also the current owner of the American Tunnel portal.

With respect to the American Tunnel itself, in 2002 SGC quitclaimed any interest it had in the easement for use of the Tunnel to a private third party not named in the UAO. Not being a current owner or operator of the bulkheads or the American Tunnel, SGC is not liable nor a responsible party subject to EPA's authority to order remedial investigation work based on current owner/operator status.

With respect to the Terry Tunnel and Gold Prince bulkheads, the bulkheads were also installed in accordance with regulatory agency approval and the terms of the Consent Decree. The interior Gold Prince bulkhead was poured on September 25, 1996. It was inspected and approved at that time. The second Gold Prince bulkhead was constructed during the 1997 work season and the State of Colorado, based on the terms of the Consent Decree, inspected it for completion on September 22, 1997. The Terry Tunnel bulkhead was installed in September of 1994 and activated in July of 1996. SGC constructed the second Terry Tunnel bulkhead in August and September of 2000 and closed it in October of that same year. The two Terry Tunnel bulkheads are part of the nine that SGC constructed to seal off the Interior Workings of the Sunnyside Mine.

EPA was well aware of this construction and as part of the June 1996 Rule Authorization regarding lime injections to the interior of the mine workings, it was recognized that there would be no further access to the bulkheads for inspection or monitoring.¹⁹ SGC does not have any legal obligation to undertake investigations purportedly designed to support the already-known fact that the bulkheads are stable and operating as designed.²⁰

To establish liability as a former owner/operator or arranger, moreover, EPA must demonstrate that there was a disposal of a hazardous substance at a facility.²¹ Prior to installation of the bulkheads, any release was federally permitted. After the installation of the bulkheads, not only did any release remain federally permitted, but the natural hydrologic regime was reestablished. Liability for a "disposal" requires the active causation of pollution, and any natural migration does not fit that definition. Under CERCLA, moreover, EPA cannot order a response action to abate a naturally occurring condition.²² There has been no active disposal of hazardous waste, and therefore SGC is not liable for any investigation or cleanup.

While not a signatory to it, EPA was very much part of the Consent Decree process in 1996 and extending through installation of the last bulkhead in 2002. EPA participated in the remedial actions SGC undertook to satisfy its obligations to the State of Colorado and the State of Colorado was operating under delegated EPA authority. SGC has already completed a final remedial action at the Sunnyside Mine, and the statute of limitations bars the current CERCLA claims against SGC. The United States Court of Appeals for the Tenth Circuit has clearly concluded that there

¹⁹ Letter from SGC to Howard Urband, U.S. EPA, *Re: EPA File No. CO5000-03745; 3rd Quarter 2001 Report (July-September) Rule Authorization Termination* (Oct. 22, 2001).

²⁰ See, e.g., SRK Consulting, *Review of EPA RI Order* (April 2018); Phillips Mining Geotechnical & Grouting Inc., *The American Tunnel Bulkhead Stability Analysis Report* (Feb. 2018).

²¹ 42 U.S.C. § 9607(a)(2)-(3).

²² 42 U.S.C. § 9604(a)(3)(A).

can be only one remedial action at a given facility.²³ For any claims arising out of the remedial action, the statute of limitations begins running at the initiation of physical on-site construction of the remedial action.²⁴ As noted in detail in SGC's May 15, 2017 letter to EPA, the statute of limitations under CERCLA has long since elapsed, and EPA is now precluded from questioning or undoing the previous remedial action it applauded.

To summarize, there has been no EPA showing of any release from the Sunnyside Mine. SGC is not the owner or operator of the American Tunnel. Any discharges that occurred during SGC's five years of mine operation were permitted and are therefore not actionable. The Consent Decree constitutes a complete defense to any EPA action and EPA's efforts to take a second bite at the remediation apple are barred by the statute of limitations. SGC is not legally liable for OU3.

IV. The Primary Party with Liability in OU3 is the Federal Government

Several previously viable potentially responsible parties (PRPs) in OU3 have filed for bankruptcy. Most others have simply gone out of business and abandoned their claims. Today, the primary responsible party in OU3 is the federal government. Geographically, volumetrically, and chronologically, BLM and the Forest Services' involvement in and responsibility for hazardous substances at sites within the BPMD, including OU3, is extensive. It dwarfs that of any other viable PRP.

"Approximately 85% of the land in the Upper Animas Basin is under public ownership. A large number of abandoned orphan mine sites are located on U.S. Forest Service (FS) or U.S. Bureau of Land Management (BLM) property."²⁵ More than 200 small mines or prospects are on BLM land, including at least 11 warranting remediation.²⁶ Roughly "one thousand mining sites" are on Forest Service land, including "twenty five sites [that] have been considered by others to have significant size and potential for significant environmental degradation."²⁷ More than half of the sites/sources listed within the BPMD are owned fully or partially by the federal government.

This federal ownership includes sites in OU3. BLM owns land covered by the American Tunnel Portal and the exterior American Tunnel Bulkhead. BLM owns land covered by portions of the

²³ *Colorado v. Sunoco, Inc.*, 337 F.2d 1233 (10th Cir. 2003).

²⁴ 42 U.S.C. § 9613(g)(2).

²⁵ Sabrina Forest, U.S. EPA, *Upper Animas Mining District Site Background and Activities* (Updated May 21, 2011).

²⁶ Thomas Nash & David L. Fey, *Mine Adits, Mine-Waste Dumps, and Mill Tailings as Sources of Contamination, Chapter E6*, in *Integrated Investigations of Environmental Effects of Historical Mining in the Animas River Watershed, San Juan County, Colorado*; U.S. Geological Survey Professional Paper 1651 (Church, S.E., von Guerard, Paul, and Finger, S.E., eds. 2007); see also Sabrina Forest, U.S. EPA, *Upper Animas Mining District Site Background and Activities* (Updated May 21, 2011) (noting "[a]pproximately 85% of the land in the Upper Animas Basin is under public ownership [and a] large number of abandoned orphan mine sites are located on U.S. Forest Service (FS) or U.S. Bureau of Land Management (BLM) property"); U.S. EPA and BLM, *Upper Animas Mining District Mixed Ownership Site Memorandum of Understanding* (Feb. 2013) (recognizing "[t]he Site is a mixed ownership site...at which releases and threatened releases of hazardous substances, pollutants, or contaminants are located partially on, or the source of the release is partially from, both private lands and BLM lands").

²⁷ Nash, J.T., *Geochemical Investigations and Interim Recommendations for Priority Abandoned Mine Sites on U.S.D.A. Forest Service Lands, Mineral Creek Watershed* (USGS 1999; Open-File Report 99-170).

Mogul and Grand Mogul Mine workings, and BLM owns a significant portion of the Grand Mogul Mine waste piles. In addition, BLM owns lands covered by part of the waste pile adjacent to the Gold King Mine Level 7 Adit. The federal government was aware from at least May 2011 that one of the “worst sources [was] the Gold King Mine 7 Level,”²⁸ and that a waste pile, owned in part by BLM, existed adjacent to the Gold King Level 7 adit. EPA estimates that 1% of the metals released in the Gold King Blowout came from inside the Gold King Mine itself, while 99% of the metals were scoured from that same waste pile and the Cement Creek streambed.²⁹

Not only does BLM own considerable property in OU3, it has exercised considerable decision making regarding hazardous substances, including their disposal, in the area. “The Upper Animas Mining District...includes public lands under the jurisdiction and control of BLM and the USDA-Forest Service.” “It is the BLM’s responsibility to protect the public lands from undue and unnecessary degradation.”³⁰ In fact, “BLM has an important role to play as manager/owner of the American Tunnel discharge and a portion of the Grand Mogul mine waste dump.”³¹ The “American Tunnel is public land managed by BLM.”³²

The same can be said of the Forest Service. Seven of the sites/sources noted on the NPL are found in the Mineral Creek Basin, where the Forest Service is the largest landowner. The Mineral Creek Basin includes several notable sites, including the Brooklyn Mine, the Bandora Mine, the Burbank Mine Tunnel, the Imogene Mine, the Silver Crown Mine, the Ruby Trust Tunnel, the Bonner Mine, the Independence Mine, and the Paradise Mine.³³ The Forest Service also exercises extensive control over its property. “The Upper Animas Mining District...includes public lands under the jurisdiction and control of BLM and the USDA-Forest Service.”³⁴ In particular, “the majority of public land in [the Mineral Creek Basin] is administered by the USDA Forest Service.”³⁵ The Forest Service recognizes its obligation to clean up hazardous waste sites as a “steward[] of the land.”³⁶

CERCLA provides that the federal government is subject to CERCLA liability “in the same manner and to the same extent, both procedurally and substantively, as any nongovernmental

²⁸ Sabrina Forest, U.S. EPA, *Upper Animas Mining District Site Background and Activities* (Updated May 21, 2011).

²⁹ U.S. EPA, *Analysis of the Transport and Fate of Metals Released from the Gold King Mine in the Animas and San Juan Rivers*, EPA/600/R-16/296 (January 2016).

³⁰ BLM, *Removal Action Decision, Non-Time Critical Removal Action, Lark Mine and Joe & John Mine* (April 2006) (with EPA concurrence).

³¹ Sabrina Forest, U.S. EPA, *Upper Animas Mining District Site Background and Activities* (Updated May 21, 2011).

³² Email from Rob Robinson, BLM Environmental Engineer, Sabrina Forrest, EPA Site Assessment Manager (Oct. 5, 2007).

³³ Nash, J.T., *Geochemical Investigations and Interim Recommendations for Priority Abandoned Mine Sites on U.S.D.A. Forest Service Lands, Mineral Creek Watershed* (USGS 1999; Open-File Report 99-170).

³⁴ BLM, *Removal Action Decision, Non-Time Critical Removal Action, Lark Mine and Joe & John Mine* (April 2006) (with EPA concurrence).

³⁵ Thomas Nash & David L. Fey, *Mine Adits, Mine-Waste Dumps, and Mill Tailings as Sources of Contamination, Chapter E6, in Integrated Investigations of Environmental Effects of Historical Mining in the Animas River Watershed, San Juan County, Colorado; U.S. Geological Survey Professional Paper 1651* (Church, S.E., von Guerard, Paul, and Finger, S.E., eds. 2007).

³⁶ See *Notes from the US Forest Service/EPA Region 8 Meeting* (Nov. 9, 1994).

entity[.]”³⁷ Under CERCLA, liability may be imposed on both current and past owners for a release or threatened release of hazardous substances.³⁸ Even if a facility is not federally controlled or operated, but the underlying title is federally owned, the government is liable.³⁹ CERCLA also imposes operator liability on anyone in a position to “manage, direct, or conduct operations specifically related to pollution,” and arranger liability on anyone who arranges for the transport or disposal of hazardous substances.⁴⁰ BLM and the Forest Service are liable as owners, operators, and arrangers.

EPA has specifically recognized that BLM is a responsible party. “BLM is a PRP from the perspective of ownership [and EPA has] been working closely with BLM as a partner and they recognize their responsibilities as a federal landowner.”⁴¹ The same can obviously be said of the Forest Service. The Forest Service's liability under CERCLA is apparent, and EPA recognizes the Forest Service as a potential “deep pocket.”⁴²

Finally, EPA itself is a responsible party. EPA is directly responsible for the Gold King Blowout, and EPA officials have admitted as much.⁴³ EPA is liable “in the same manner and to the same extent, both procedurally and substantively, as any nongovernmental entity.”⁴⁴

V. The Federal Government Should be Financially Responsible for any Investigation in OU3

The primary liable party in OU3 is the federal government. EPA had accepted its liability, and had, as a consequence of its liability, instituted a remedial investigation of the Bonita Peak groundwater system:

The site team, including EPA, U.S. Forest Service, Bureau of Land Management and Colorado Department of Public Health and Environment are conducting a Remedial Investigation/Feasibility Study (RI/FS) at the site. This includes a Human Health Risk Assessment, Ecological Risk Assessment *and a hydrologic study of the Bonita Peak groundwater system.*⁴⁵

Rather than continue those efforts like any other PRP would be expected to do, EPA has chosen to claim poverty and order SGC to undertake the dangerous, unnecessary, and environmentally destructive work EPA would now rather not itself undertake. It would be unjust for EPA to shift

³⁷ 42 U.S.C. § 9620(a)(1).

³⁸ 42 U.S.C. § 9607.

³⁹ *Chevron Mining Inc. v. U.S.*, 863 F.3d 1261, 1274 (10th Cir. 2017).

⁴⁰ *U.S. v. Bestfoods*, 524 U.S. 51, 67 (1998); 42 U.S.C. § 9607.

⁴¹ Email from Paula Schmittiel, EPA Remedial Project Manager, to Katherine Garufi, EPA Environmental Engineer, *Re: Upper Animas - BLM* (Aug. 17, 2015); *see also* Email from Ann Umphres, BLM Attorney, to Richard Sisk, EPA Attorney, *Re: American Tunnel* (Sept. 29, 2011) (addressing potential 104(e) request to BLM and the American Tunnel).

⁴² *See Notes from the US Forest Service/EPA Region 8 Meeting* (Nov. 9, 1994).

⁴³ U.S. EPA, *Emergency Response to August 2015 Release from Gold King Mine*; available at <https://www.epa.gov/goldkingmine%20> (“EPA takes responsibility for the Gold King Mine release.”).

⁴⁴ 42 U.S.C. § 9620(a)(1).

⁴⁵ U.S. EPA, *Bonita Peak Mining District, Unincorporated, CO; Site Details*; available at <https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.topics&id=0802497>.

responsibility for conducting remedial work necessary because of the liability of the federal government onto SGC, an innocent party.⁴⁶

In the UAO, EPA incredibly asserts as one of two central bases for the UAO that "There are no other appropriate federal or state entities that have the funding resources to perform the remedial investigation at OU3."⁴⁷ The federal government clearly has the resources.⁴⁸ The BPMD is "Targeted for Immediate, Intense Action."⁴⁹ The EPA Administrator "has made Superfund Clean-Ups a Priority,"⁵⁰ and EPA "is to restore the Superfund program to its rightful place at the center of the agency's core mission."⁵¹

Moreover, notwithstanding that BLM and the Forest Service are liable, that EPA recognizes that they are liable, and that the agencies recognize their responsibilities, neither BLM nor the Forest Service is a party to the UAO. The federal government is not being asked to shoulder any responsibility under the UAO, while SGC, a small company with limited resources that is not liable nor a PRP for the reasons set forth above, is being ordered to undertake significant and unnecessary response actions that should rightfully be borne by the federal government. This approach is contrary to CERCLA, which requires that those responsible for pollution should pay for its cleanup.⁵² The ability to seek recovery of its costs from the federal government is cold comfort to SGC, as the process could take years if not decades and arises only after SGC has been forced to engage in risky on the ground work that could cost lives and create environmental disasters.

VI. The UAO is Illegal

In addition to being inequitable and indefensible, the UAO is plainly illegal for the reasons discussed below.

A. There is No Release of a Hazardous Substance or Any Imminent and Substantial Endangerment, and There is No Threat to Human Health, Welfare, or the Environment for Which SGC is Responsible

A valid UAO requires an imminent and substantial endangerment to the public health, welfare, or the environment. EPA has shown none.

⁴⁶ Additional remedial investigation work at SGC's expense, moreover, is not necessary in OU3 and is inconsistent with the NCP. The NCP provides that Operable Units should not be inconsistent with nor preclude implementation of the expected final remedy. 40 C.F.R. § 300.430(a)(1)(ii)(B). As indicated in the UAO, the Sunnyside Mine constitutes a separate facility, divisible and geographically distinct from other facilities. It has already undergone a remedial action. As a result, a remedial investigation specific to OU3 would not support or be consistent with any future remedy.

⁴⁷ Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site*, § V(17)(f)(2).

⁴⁸ EPA recently received full funding as part of the \$1.3 trillion dollar federal spending appropriations bill.

⁴⁹ U.S. EPA, *Superfund Sites Targeted for Immediate, Intense Action*; available at: <https://www.epa.gov/superfund/superfund-sites-targeted-immediate-intense-action>.

⁵⁰ U.S. EPA News Release, "Pruitt Has Made Superfund Clean-Ups a Priority" (January 3, 2018); available at <https://www.epa.gov/newsreleases/pruitt-has-made-superfund-clean-ups-priority>.

⁵¹ E. Scott Pruitt, EPA Administrator, *Memorandum Re: Receipt of Superfund Task Force Report and Next Steps for Revitalizing the Superfund Program* (EPA July 25, 2017).

⁵² See *Burlington N. and Santa Fe Ry. Co. v. U.S.*, 556 U.S. 599 (2009).

There has been no release, or threatened release, of a hazardous substance from the Interior Workings. SGC implemented a comprehensive bulkheading and neutralization program in conformance with a Court approved and EPA endorsed Consent Decree to isolate Interior Workings' water and reestablish the area's natural hydrologic equilibrium.⁵³ The bulkheads are stable and functioning as intended. Bulkhead No. 1 sealed the Interior Workings from the American Tunnel. Bulkhead No. 2 sealed water originating from a natural fracture system on Gold King Mine property. There has been no demonstrated connection between the Interior Workings and the Gold King Mine or the American Tunnel discharge, and EPA admits there is no known connection between the Interior Workings and nearby mines.⁵⁴ The desire to evaluate the Terry Tunnel and Gold Prince bulkheads is simply to satisfy curiosity, not because there has been a showing of anything approaching an imminent hazard at either bulkhead.

The "Mine Pool," moreover, is identified as a "study area" in EPA's NPL documents. It has not even been scored under the Hazard Ranking System (HRS), the process by which EPA is supposed to prioritize remediation. Mere curiosity about a hypothetical release that does not warrant remedial prioritization certainly does not rise to the level of an imminent and substantial endangerment.

It was not until the August 5, 2015, EPA caused Blowout at the Gold King Mine that the curiosity of some in EPA was piqued regarding the Interior Workings, and particularly an inexplicable desire to characterize the internal wanderings of the water. These same on the ground facts have existed for years, yet every regulatory agency, including EPA, has been completely comfortable with the remediation that the comprehensive bulkheading regime achieved. If EPA really did believe an imminent and substantial endangerment existed, it would be operating the water treatment plant at Gladstone to its full capacity rather than simply allowing acidic metals-laden water to bypass the plant.

EPA has demonstrated no imminent and substantial endangerment. The nature of the release or threat of release and the nature of the endangerment and bases must be set forth as findings in the UAO.⁵⁵ "Evidence presented" to support the issuance of a UAO "must show 'that there may be an imminent and substantial endangerment.'"⁵⁶ The UAO fails to make (and cannot make) this showing. It simply makes a conclusory assertion: "The conditions at OU3 of the Site may constitute an imminent and substantial endangerment to public health or welfare or the environment."⁵⁷ That bald statement is insufficient.

⁵³ See Letter from Westesen to Sisk (May 15, 2017) (and attachments); see also, e.g., Enviromin, *Expert Report in Response to Statement of Work, Unilateral Administrative Order of Remedial Investigation, Bonita Peak Mining District Superfund Site* (April 2018).

⁵⁴ Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site*, Appendix A: Statement of Work for Remedial Investigation, 1 (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

⁵⁵ U.S. EPA, *Guidance Memorandum on Use and Issuance of Administrative Orders Under Section 106(a) of CERCLA* (Sept. 8, 1983).

⁵⁶ U.S. EPA, *Guidance Memorandum on Use and Issuance of Administrative Orders Under Section 106(a) of CERCLA* (Sept. 8, 1983).

⁵⁷ Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site*, § V(17)(g); see also § I(2) (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

There is no evidence of a release or threatened release at the Interior Workings, and the natural hydrologic equilibrium has been reestablished. As recognized by SRK Consulting:

[I]t is not clear why EPA is only now demanding that a remedial investigation be conducted. The final bulkheads at the Sunnyside Mine site were installed over 20 years ago and nothing has changed at the site that was not planned for in the historic closure documents. EPA claims that the RI will “abate an imminent and substantial endangerment to the public health or welfare or the environment that may be presented by the actual or threatened release of hazardous substances.” No basis is provided for the suggestion of “imminent or substantial endangerment” since nothing planned from before has changed.⁵⁸

Today, any possible release from these sites arises from the restoration of the natural hydrology, which equates to a non-actionable release of a naturally occurring or non-hazardous substance.⁵⁹ There is no imminent and substantial endangerment, nor any release threatening the public health, welfare, or the environment for which SGC is responsible. There is no additional study necessary to protect the public health, welfare, or the environment. The conditions at Bonita Peak have existed since the last bulkheads were installed years ago. The highly mineralized natural background conditions have existed for millennia. EPA has identified nothing, nor does anything exist, to justify the need for precipitous action now.

B. The Engineered Bulkheads are Stable and Performing as Intended, and There is No Evidence to the Contrary

The installation of engineered bulkheads is often part of Best Management Practices for final mine closure. The engineered concrete bulkheads installed by SGC in the Bonita Peak area for purposes of environmental remediation are stable and performing as intended.⁶⁰ The bulkheads have isolated the Interior Workings of the Sunnyside Mine and caused the water table to return toward natural levels, resulting in the expected increase in flows from springs, seeps, and adits exactly as intended by the Consent Decree. Bulkheading isolates mine drainage from direct contact with surface waters, establishes an approximation of the pre-mining phreatic surface, and minimizes the oxygen available for chemical reaction. An added benefit of engineered bulkheads is the protection of surface waters from potential blowouts when flow blockages occur due to collapsed and unmaintained mine workings.

As recently recognized by multiple engineering experts, the engineered bulkheads are stable and there is no appreciable risk of catastrophic failure.⁶¹ No further study is necessary to support this fact. For example, a 2016 Deere & Ault study, commissioned by EPA, concluded that “[s]hear failures in the bulkheads are unlikely [and that] [s]tructural failures would be very unlikely.” The report specifically stated:

⁵⁸SRK Consulting, *Review of EPA RI Order* (April 2018); see also Enviromin, *Expert Report in Response to Statement of Work, Unilateral Administrative Order of Remedial Investigation, Bonita Peak Mining District Superfund Site* (April 2018).

⁵⁹ 42 U.S.C. § 9604(a)(3)(A).

⁶⁰ *The Engineered Concrete Bulkheads Installed by SGC* (Feb. 2018).

⁶¹ *The Engineered Concrete Bulkheads Installed by SGC* (Feb. 2018).

We have reviewed the design and as-built reports for all three American Tunnel bulkheads and generally concur with their stated capacities.... Based on their design pressures, the American Tunnel Bulkheads are unlikely to fail in a catastrophic manner. If water pressures were higher than expected, the most likely consequence would be increased seepages past the bulkheads through the rock mass.⁶²

Reaching a similar conclusion is Stephen Phillips of Phillips Mining Geotechnical & Grouting LLC, a leading expert in the field:

It is my opinion that the design and construction of the bulkheads were carried out adequately and that a catastrophic disruptive shear or structural failure leading to a large release of water is extremely unlikely.⁶³

This precise, contemplated, and intended situation has existed for years. It is certainly nothing to justify a UAO.

All of the SGC installed bulkheads were similarly designed, engineered, and constructed as part of an integrated plan. EPA has provided no evidence whatsoever that the Terry Tunnel and Gold Prince bulkheads are somehow different than the other bulkheads and that there is somehow some question as to their integrity. An engineering report reinforcing the integrity of these specific bulkheads can easily be generated. A general desire to evaluate the need for access to exterior bulkheads for possible ongoing inspection and monitoring contradicts EPA's position at the time the bulkheads were installed and does not justify issuance of a UAO now.

C. The Ordered Drilling is Not Justified and Excavation Could Compromise the Integrity of the Currently Functioning Bulkheads with No Potential Benefit

Some of EPA's proposed actions are highly suspect from a technical standpoint. "Fully characterizing" the Interior Workings is logistically and technologically infeasible and unsafe.⁶⁴ Moreover, the environmental destruction that may arise from some actions would far outweigh the value of any information that might be gleaned from the undertaking.

The drilling terrain is steep, highly variable, and unstable. Identifying and then hitting a desired target by drilling into the Interior Workings would be very difficult if not impossible. The Interior Workings consist of tunnels, shafts, adits, timber, voids, rock, water, cables and innumerable other obstacles of unknown location, extent, or potential impact on drilling operations. It is not clear whether EPA expects these wells to penetrate the American Tunnel itself, but if that is the expectation:

⁶² Deere & Ault Consultants, Inc., *Red and Bonita Mine Bulkhead Closure Evaluation; D&A Job No. CG-0628.001.00* (March 24, 2016).

⁶³ Phillips Mining Geotechnical & Grouting Inc., *The American Tunnel Bulkhead Stability Analysis Report* (Feb. 2018).

⁶⁴ See, e.g., SRK Consulting, *Review of EPA RI Order* (April 2018).

[T]his activity has the potential to induce localized roof collapse when intercepting the tunnel during drilling. The effect of such a localized collapse is unknown, but it could lead to difficulties sealing the well casing against leakage, resulting in an unnecessary groundwater migration pathway.⁶⁵

Drilling into the Interior Workings would be environmentally destructive and counterproductive. Accessing drilling locations with necessary equipment would require considerable destruction of high alpine tundra, the expansion of roads, and other environmental impacts. Considering the UAO would likely require mobilization of a large drill rig to the Lake Emma area, even a cursory review of a photograph of the relevant access road demonstrates the extreme complications and necessary road modifications that would be encountered and required.⁶⁶ This type of work in this context is extremely dangerous, both to the environment and to the crews EPA is ordering to undertake the task.

The existing bulkheads are stable and functioning correctly now, but the proposed excavation work could change that. John Tinucci of SRK Consulting, another leading expert in the field, has noted that doing the required excavating of the backfilled portals could potentially compromise the integrity of the currently functioning bulkheads.⁶⁷ EPA, as the party ordering this work, will be responsible for any consequences that flow from it.

Even if drilling into the Interior Workings is ultimately successful, the data generated would be of no value. Interior Workings water quality is variable, and drilling would provide only a snapshot of isolated information at a particular location with no broader applicability.⁶⁸ As explained by Enviromin:

Prediction of solute transport in this setting would require the use of multiple assumptions about surface area, hydraulic conductivity, gas availability, and redox conditions, thereby introducing significant uncertainty to any model. Such a model almost certainly could not be calibrated without analysis of thousands of water quality samples collected frequently over a period of several years and hundreds of mineral samples requiring extensive drilling. Even with such an extensive data collection campaign, reactive fate and transport modeling could not confidently prove any solute contributions.⁶⁹

...

Attempts to characterize groundwater flow based on monitoring and testing of limited monitoring well completions will not inform predictions of groundwater flow. Instead, this physically dangerous and expensive work will raise greater uncertainty than it will resolve, and delay timely relief for aquatic resources in the

⁶⁵ SRK Consulting, *Review of EPA RI Order* (April 2018).

⁶⁶ Photo of Eureka Gulch Access Road, *Eureka Road Just below the Terry Tunnel* (2018).

⁶⁷ SRK Consulting, *Review of EPA RI Order* (April 2018).

⁶⁸ See, e.g., SRK Consulting, *Review of EPA RI Order* (April 2018); Pioneer Technical Services, Inc., *Bonita Peak Mining District Superfund Site, CERCLA-08-2018-0005, Unilateral Administrative Order for Remedial Investigation* (April 2018); Enviromin, *Expert Report in Response to Statement of Work, Unilateral Administrative Order of Remedial Investigation, Bonita Peak Mining District Superfund Site* (April 2018).

⁶⁹ Enviromin, *Expert Report in Response to Statement of Work, Unilateral Administrative Order of Remedial Investigation, Bonita Peak Mining District Superfund Site* (April 2018).

Animas. In the big picture, understanding local variation in water elevation within mine workings, across structures, and along flow paths is unnecessary and unimportant to EPA's overall goal of reducing contamination to the Animas River. Understanding how water arrives at Cement Creek, or elsewhere, will not change the fact that it does arrive – nor will the purported enhanced understanding improve water quality.

...

In the context of the above hydrogeochemical considerations, an extensive groundwater characterization campaign in support of a reactive transport modeling program seems unnecessary and even somewhat reckless, given the risks, costs, and timelines involved.

As explained by Pioneer Technical Services, Inc:

Given the complexities of the fractured bedrock aquifer system in OU3, it will be very difficult to define the exact hydrogeologic conditions or to reach any definitive conclusions with any level of investigation and the RI may never reach firm conclusions or identify solutions beyond collection and treatment with conventional methods. Because of these uncertainties, rapid employment of known technologies may be the best overall approach to mitigating impacts at the site.⁷⁰

EPA's ordered actions are technically highly suspect, dangerous, expensive, will generate data of no value, and will not make the water any cleaner. Simply because some at EPA think it would be "nice to know" something does not mean that information would be of any value in improving downstream water quality, and it certainly does not justify a UAO.

D. The Ordered Installation of Two Meteorological Stations is Technically Suspect and of Questionable Value

Installation of two meteorological stations is technically suspect and of questionable (or unnecessarily redundant) value. Given the site conditions (*e.g.*, elevation, lack of access for eight to nine months per year, variable and inclement weather), completion of this task is questionable. The equipment necessary to complete these investigations at the locations specified is highly sensitive and prone to failure in locations subject to the conditions commonly experienced in the two specified locations. The size of solar arrays necessary to power heated tipping cups alone is daunting, as is the sheltering of the battery capacity necessary to provide continuous power during prolonged periods of snow. Furthermore, direct measurement of evaporation and sublimation losses at the elevations specified is not possible, and the calculation of these parameters is subject to numerous assumptions that can produce large errors.

⁷⁰ Pioneer Technical Services, Inc., *Bonita Peak Mining District Superfund Site, CERCLA-08-2018-0005, Unilateral Administrative Order for Remedial Investigation* (April 2018).

E. Water Quality Can be Improved Now and There is No Need for Unnecessary Study

The solution to improving Animas River water quality is apparent. A water treatment plant offers a simple technology that has been demonstrated to work.

Based on this evaluation, collecting and routing of the Upper Cement Creek MIW sources to the current Gladstone IWTP provides the greatest certainty of beneficial results combined with the ability to implement new or improved technologies as they are developed and proven in the future.⁷¹

Similarly:

A significant step that EPA should consider completing before performing the OU3 RI that is consistent with the Adaptive Management approach suggested in the RI Scope of Work (SOW) involves surface water treatment. Past efforts to treat MIW sources to Cement Creek successfully reduced metals concentrations and lessened the severity of the impacts to Cement Creek and other water bodies. Based on this established fact, the collection and treatment of the known MIW sources could be a viable first step in the adaptive management approach for the site. Since the current interim water treatment plant at Gladstone has sufficient capacity to treat additional sources (see Appendix A to the EECA prepared by CDM), or, in the worst case, could be expanded to have sufficient capacity with minimal effort, the known MIW sources could be collected and treated and the downstream water quality and ecological communities could then be monitored for a suitable time to determine if additional steps beyond treatment would be warranted.⁷²

EPA has itself employed water treatment in the Bonita Peak area, and the National Contingency Plan (NCP) contemplates treatment as the preferred option: "EPA expects to use treatment to address the principal threats posed by a site, whenever practicable."⁷³ SGC has offered to help make a water treatment plant a reality.⁷⁴ SGC has also offered, on multiple occasions, to provide EPA with a repository for materials generated in the water treatment process.⁷⁵ EPA, by contrast, has not operated the current Gladstone water treatment plant to capacity, and has instead allowed metals-influenced water to bypass the plant and directly enter Cement Creek.

No amount of study will change the efficacy, practicability, and cost-effectiveness of this solution. The Bonita Peak area's environmental characteristics and the means to remediate its environmental issues have been studied exhaustively from many angles, by many entities, representing many

⁷¹ Pioneer Technical Services, Inc., *Technical and Engineering Considerations Summary Treatment Options for Mining-Influenced Water Upper Cement Creek, Bonita Peak Area* (Feb. 2018).

⁷² Pioneer Technical Services, Inc., *Bonita Peak Mining District Superfund Site, CERCLA-08-2018-0005, Unilateral Administrative Order for Remedial Investigation* (April 2018).

⁷³ 40 C.F.R. § 300.430(a)(1)(iii)(A).

⁷⁴ Letter from SGC to BLM and ARSG, *Re: Animas River Water Quality* (Oct. 4, 2011); Letter from SGC to Gina McCarthy, U.S. EPA Administrator, *Re: Ten Million Tendered for Animas* (Jan. 25, 2016).

⁷⁵ SGC and EPA, *Correspondence and Offers Regarding Sludge Repository* (2016).

scientific disciplines.⁷⁶ More than sufficient information exists to identify, evaluate, and implement a remedial action.⁷⁷

The BPMD, moreover, has been identified as a site for immediate, intense action, where timely resolution of specific issues to expedite cleanup should be taken where the opportunity exists.⁷⁸ That opportunity clearly exists here, and it should not be stifled by unnecessary study. As required by the EPA Administrator:

Utilize early or interim response actions, including removal authority or interim remedies, more frequently as appropriate to address immediate risks, prevent source migration and return portions of sites to reuse while more-detailed evaluations of other portions of sites are ongoing. We should not allow for years of study to delay addressing immediate risks.⁷⁹

EPA has described those sites targeted for “immediate and intense action” as places “requiring timely resolution of specific issues to expedite cleanup and redevelopment efforts. The list is designed to spur action at sites where opportunities exist to act quickly and comprehensively.”⁸⁰ Spending limited resources on the pointless study of underground water does nothing to address water quality issues in the Animas River and is particularly indefensible when the source of metals loading is known and the methodology for treatment is in place.

F. The UAO Targets Naturally Occurring Conditions—A Prohibited Course of Action Under CERCLA

EPA may not order an entity to conduct a remedial investigation if it is in response to a release or threatened release of a “naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found[.]”⁸¹ This is precisely what EPA is attempting to do through the UAO.

The UAO targets “seeps and springs” in OU3. These “seeps and springs” are the very ones envisioned by the Consent Decree. They have arisen, as anticipated, as a result of the restoration of the natural hydrologic equilibrium. Moreover, seeps and springs exist within OU3 that have never been affected by mining, and they reflect naturally occurring metals loading and low pH.

EPA's unlawful targeting of the natural condition is further demonstrated by the fact that the *only* purported threat to the public health or welfare or the environment identified in the UAO is the “adverse ecological risks to aquatic receptors in Cement Creek,” and particularly that “water

⁷⁶ See *There is More Than Sufficient Knowledge to Tackle Bonita Peak Today and Improve Water Quality in the Animas River* (and supporting documentation) (Feb. 2018).

⁷⁷ See *There is More Than Sufficient Knowledge to Tackle Bonita Peak Today and Improve Water Quality in the Animas River* (and supporting documentation) (Feb. 2018).

⁷⁸ U.S. EPA Press Release, *Superfund Sites Targeted for Immediate, Intense Action* (Dec. 2017).

⁷⁹ E. Scott Pruitt, EPA Administrator, *Memorandum Re: Receipt of Superfund Task Force Report and Next Steps for Revitalizing the Superfund Program* (EPA July 25, 2017).

⁸⁰ U.S. EPA Press Release, *Superfund Sites Targeted for Immediate, Intense Action* (Dec. 2017).

⁸¹ 42 U.S.C. § 9604(a)(3).

quality in Cement Creek would cause lethal stress to fish and would be acutely toxic to juvenile rainbow trout."⁸²

Cement Creek has never supported a fish community. As EPA recognized, "[D]ue to natural processes, it is unlikely that Cement Creek ever supported fish communities."⁸³ EPA's Baseline Ecological Risk Assessment (BERA) looked only at "a *hypothetical* fish community," not one that actually ever existed in or around OU3.⁸⁴ "Streams and tributaries in drainages with extensive areas of alteration, such as Cement Creek, Mineral Creek (except the South Fork) and the headwaters of the upper Animas River, probably never supported trout populations."⁸⁵ In fact, observations made as early as 1874, before any large scale mining occurred, indicated that the water in Cement Creek was "so strongly impregnated with mineral ingredients as to be quite unfit for drinking."⁸⁶

The UAO illegally attempts to order SGC to undertake a response action in response to naturally occurring conditions. Under CERCLA, EPA cannot order a response action to abate a naturally occurring condition.⁸⁷

Before issuing a UAO, moreover, EPA must determine that "there may be an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance from a facility[.]"⁸⁸ There is no threat here, nor any demonstration that any hypothetical threat arose from any release from the Sunnyside Mine. The actual or potential threat EPA identifies, possible harm to fish, is simply a reflection of natural conditions that have existed for centuries. The ordering of additional study of that natural condition is not necessary to protect the public health or welfare or the environment.

G. The UAO is Not Consistent with the National Contingency Plan

An overriding goal of CERCLA is to provide the government with efficient and effective tools to effectuate the prompt cleanup of contaminated properties. The ultimate goal of the NCP in the remedial investigation context is to cost-effectively gather only that data necessary to identify remedial alternatives tailored to the site, and then to implement remedial actions as soon as possible. The NCP provides:

⁸² Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site*, ¶ 17(f)(1) (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

⁸³ Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site*, ¶ 13 (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

⁸⁴ TechLaw, Inc., *Baseline Ecological Risk Assessment, Upper Animas Mining District, San Juan County, Colorado*, prepared for U.S. EPA (April 2015) (emphasis added).

⁸⁵ Formation Environmental, LLC, *Draft Aquatic Biota Baseline Ecological Risk Assessment, Mayflower Tailings Impoundments Area* (Jan. 2018).

⁸⁶ U.S. Geological Survey, *Summary and Conclusions from Investigation of the Effects of Historical Mining in the Animas River Watershed, San Juan County, Colorado, Chapter A in Integrated Investigations of Environmental Effects of Historical Mining in the Animas River Watershed, San Juan County, Colorado*; U.S. Geological Survey Professional Paper 1651 (Church, S.E., von Guerard, Paul, and Finger, S.E., eds. 2007).

⁸⁷ 42 U.S.C. § 9604(a)(3)(A).

⁸⁸ 42 U.S.C. § 9606(a).

- Remedial actions are to be implemented *as soon as site data and information make it possible* to do so.⁸⁹
- Identify the type, quality, and *quantity of the data* that will be collected during the RI/FS *to support decisions* regarding remedial response activities.⁹⁰
- The purpose of the remedial investigation (RI) is to *collect data necessary to adequately characterize the site* for the purpose of *developing and evaluating effective remedial alternatives*.⁹¹
- Site-specific *data needs...should reflect the scope and complexity of the site problems* being addressed.⁹²
- The purpose of the remedial investigation/feasibility study (RI/FS) is to assess site conditions and evaluate alternatives *to the extent necessary* to select a remedy.⁹³
- The *scope and timing of these activities should be tailored* to the nature and complexity of the problem and the response alternatives being considered.⁹⁴
- The investigative and analytical studies should be *tailored to site circumstances so that the scope and detail of the analysis is appropriate* to the complexity of site problems being addressed.⁹⁵
- Develop sampling and analysis plans that shall provide a process for *obtaining data of sufficient quality and quantity to satisfy data needs*.⁹⁶
- The lead agency shall characterize the nature of and threat posed by the hazardous substances... and *gather data necessary to assess the extent to which the release poses a threat to human health or the environment or to support the analysis and design of potential response actions....*⁹⁷

Here, there is simply no need for additional study, and sufficient knowledge exists to implement a remedial action. EPA's UAO to the contrary is inconsistent with the NCP. The Bonita Peak area has been studied exhaustively. It is one of the most studied places in the United States. Its environmental characteristics and the means to remediate its environmental issues have been studied in depth for upwards of 30 years. It has been studied from many angles, by many entities, representing many scientific disciplines.⁹⁸ The area's environmental characteristics are well

⁸⁹ 40 C.F.R. § 300.430(a)(1).

⁹⁰ 40 C.F.R. § 300.430(b)(5).

⁹¹ 40 C.F.R. § 300.430(d)(1).

⁹² 40 C.F.R. § 300.430(a)(1)(ii)(C).

⁹³ 40 C.F.R. § 300.430(a)(2).

⁹⁴ 40 C.F.R. § 300.430(a)(2).

⁹⁵ 40 C.F.R. § 300.430(b).

⁹⁶ 40 C.F.R. § 300.430(b)(8).

⁹⁷ 40 C.F.R. § 300.430(d)(2).

⁹⁸ See *There is More Than Sufficient Knowledge to Tackle Bonita Peak Today and Improve Water Quality*

understood. There is unquestionably sufficient knowledge in hand to make the decisions necessary to successfully address the major remaining sources of metals loading to the Animas River.

Notwithstanding this state of affairs, EPA orders further study. No objective, scientific evidence exists supporting any need for further study or the delay in remediation contemplated by the UAO. The UAO itself fails to describe *any* possible remedy that could be designed from the unnecessary study.

EPA does reference a CDM Smith memorandum dated March 3, 2017, which identifies purported "data gaps." The collection of the listed data might satisfy idle curiosity. The demand that water quality and levels in various parts of the Interior Workings, including temporal trends, be measured and documented has nothing to do with discharge locations or quality. Instead, it amounts to a gigantic "science project" that will not add anything significant or useful toward mitigating the area's issue, which is that poor quality water is discharging out of the Gold King, Red & Bonita, and other adits. As CDM Smith recognizes, water quality is "known at the discharge points."⁹⁹ "The characterization activities requested [by EPA]," moreover, "would be insufficient to 'abate an imminent and substantial endangerment' if such a hazard actually existed."¹⁰⁰

The internal underground wanderings of water are irrelevant to a solution. Where the water comes out, what its quality and quantity is, and how to remediate any concerns that water might present are well known.

Understanding how water arrives at Cement Creek, or elsewhere, will not change the fact that it does arrive – nor will the purported enhanced understanding improve water quality.¹⁰¹

Further study is not necessary to assess any remedial action alternatives. EPA advocates additional study despite recognition of its own shortcomings:

It is a valid criticism of the EPA—taking far too long in the studies before we start to take response actions[.]¹⁰²

There is no rationale or reasonable basis, nor does EPA provide any, for conducting further investigation of the Bonita Peak area. EPA's order to the contrary is inconsistent with the NCP.

H. EPA's Conflict of Interest and Deprivation of SGC's Due Process

EPA's conflict of interest is apparent in the UAO. The UAO shifts costs and attempts to deflect liability away from the federal government, the primary liable party, to SGC, who has no liability

in the Animas River (Feb. 2018) (citing voluminous studies and conclusions).

⁹⁹ CDM Smith, *Draft Memorandum, Bonita Peak Mining District Remedial Investigation: 2017 Ground Water Scope for Sunnyside Mine Pool Study Area* (March 3, 2017).

¹⁰⁰ SRK Consulting, *Review of EPA RI Order* (April 2018).

¹⁰¹ Enviromin, *Expert Report in Response to Statement of Work, Unilateral Administrative Order of Remedial Investigation, Bonita Peak Mining District Superfund Site* (April 2018).

¹⁰² *Denver Post*, *EPA crews working on Gold King cleanup find elevated lead threatening birds, animals and, potentially, people* (Oct. 19, 2017) (quoting Rebecca Thomas, U.S. EPA).

and is not a PRP. In so doing, EPA circumvents CERCLA's provisions in an effort to absolve itself and other federal PRPs of responsibility, while simultaneously endeavoring to pin liability on an innocent party. That effort is grossly unfair, an abuse of process, and it deprives SGC of due process.

There are a number of federal PRPs with liability associated with OU3. Rather than naming those federal PRPs as responsible parties in the UAO, EPA orders SGC to conduct response actions for which the federal government is responsible, then to add insult to injury, to pay EPA any response costs it incurs to oversee the process.¹⁰³ If these federal PRPs were private parties, they would be forced to shoulder their responsibility for cleanup, and then, if appropriate, seek reimbursement through a cost recovery or reimbursement action. EPA's approach unfairly shifts costs to SGC and deflects attention from EPA and the federal government's own liability.

EPA's actions deprive SGC of due process. Procedural due process "imposes constraints on governmental decisions which deprive individuals of 'liberty' or 'property' interests within the meaning of the Due Process Clause of the Fifth or Fourteenth Amendment."¹⁰⁴ When a party stands to suffer "a deprivation of a liberty or property interest, it has the right to notice and an opportunity to be heard"¹⁰⁵ "at a meaningful time and in a meaningful manner."¹⁰⁶ SGC has had no such opportunity here, depriving it of due process.

The UAO came without notice and with accelerated timelines, two practices that are inconsistent with EPA guidance.¹⁰⁷ This inability to be heard is compounded by EPA's failure to provide any objective, scientific support for the response actions it has ordered. EPA's approach fundamentally misconceives the obligation of an administrative agency to make factual findings and to point out the materials in the record that support its position.¹⁰⁸ The UAO, moreover, has determined rights and obligations through which legal consequences will flow. It orders SGC to conduct a remedial investigation, and gives EPA access to its property and to records concerning work performed under the UAO. It contains findings and conclusions not subject to further agency review, and there is no entitlement to further agency review.

This impossibility to be meaningfully heard, moreover, is exacerbated by the means by which EPA placed the site on the NPL. The "Mine Pool" was identified only as a "study area" in the NPL listing. It was not scored pursuant to the Hazard Ranking System (HRS). It was therefore not prioritized for remediation. Typically, scoring an NPL site involves "the examination of data in the context of a scoring system; if a certain environmental event occurs, it warrants a certain

¹⁰³ Notwithstanding lack of clarity in the UAO, the UAO only orders payment of EPA's response costs, not BLM's. See Email from Douglas Naftz to Chris Stoneback, *Re: SGC UAO Discussion Items* (April 9, 2018).

¹⁰⁴ *Mathews v. Eldridge*, 424 U.S. 319, 332 (1976).

¹⁰⁵ *SCA Services of Indiana, Inc. v. Thomas*, 634 F. Supp. 1355, 1367 (N.D. Ind. 1986) (citing *Fuentes v. Shevin*, 407 U.S. 67, 80 (1972)).

¹⁰⁶ *Mathews v. Eldridge*, 424 U.S. 319, 333 (1976) (quoting *Armstrong v. Manzo*, 380 U.S. 545, 552 (1965)).

¹⁰⁷ U.S. EPA, *Guidance Memorandum on Use and Issuance of Administrative Orders Under Section 106(a) of CERCLA* (Sept. 8, 1983).

¹⁰⁸ See *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29 (1983); *Citizens to Preserve Overton Park v. Volpe*, 332 U.S. 402 (1971).

number of HRS points. The process is relatively objective; the data is collected, then scored.”¹⁰⁹ A party can then present objections and address the implications and deprivations that would occur post-listing. Here, SGC never received that opportunity.

The HRS provides EPA with a “yardstick”¹¹⁰ with which it can measure the implications and the necessity of the deprivations that follow listing and eventual remedial investigation orders. Because EPA affirmatively chose to ignore that yardstick, and failed to evaluate objective data regarding the site, SGC has never had an opportunity to be meaningfully heard on this deprivation.

VII. Additional UAO Comments

A. UAO Conclusions of Law¹¹¹

EPA's Conclusions of Law demonstrate a misapprehension of the law, or a failure to appropriately apply the facts to the law. As demonstrated above, SGC is not factually or legally liable for water quality issues in the Animas River. SGC is not a liable party, and there has been no showing of any release or threatened release of any hazardous substance from the Sunnyside Mine. Any release ostensibly attributable to SGC constitutes a non-actionable federally permitted release or the release of a naturally occurring or non-hazardous substance. There is no release of a hazardous substance or any imminent and substantial endangerment, and there is no threat to human health, welfare, or the environment for which SGC is responsible.

B. UAO Findings of "Fact"¹¹²

EPA's Findings of "Fact" demonstrate that EPA fundamentally misunderstands, or affirmatively misconstrues, the environmental condition and responsible party situation in OU3.

1. EPA Ignores the Natural Condition

The Findings of Fact assert that “[t]he release of hazardous substances, primarily heavy metals, from the source areas at the Site are due to the operation and abandonment or discontinued operation of mines in the Upper Animas, Cement Creek and Mineral Creek drainages of the Animas River.”¹¹³ This is an inaccurate characterization of the source of metals because it ignores (or affirmatively misconstrues) a significant, material source of metals to the Animas River—the natural condition.¹¹⁴

Water in portions of the Animas River watershed has always been of poor background quality. The alteration of volcanic and sedimentary rocks by hydrothermal processes resulted in the

¹⁰⁹ *SCA Services of Indiana, Inc. v. Thomas*, 634 F. Supp. 1355, 1373 (N.D. Ind. 1986).

¹¹⁰ *SCA Services of Indiana, Inc. v. Thomas*, 634 F. Supp. 1355, 1373 (N.D. Ind. 1986).

¹¹¹ SGC disputes, and reserves the right to contest, all of EPA's Conclusions of Law and Determinations, even if not expressly addressed in SGC's Statement of Position and Written Comments.

¹¹² SGC disputes, and reserves the right to contest, all of EPA's Findings of Fact, even if not expressly addressed in SGC's Statement of Position and Written Comments.

¹¹³ Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site*, ¶ 7 (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

¹¹⁴ See, e.g., *Pioneer Technical Services, Inc. Bonita Peak Mining District Superfund Site, CERCLA-08-2018-0005, Unilateral Administrative Order for Remedial Investigation* (April 2018).

formation of ore bodies containing minerals and the development of extensive areas of naturally acidic rocks and soils.¹¹⁵ This geologic setting resulted in naturally elevated background levels of acid and toxic metals in some stream reaches.¹¹⁶ Even in streams less affected by high background levels of acid and metals, the high altitude of the watershed led to relatively poorly developed aquatic communities.¹¹⁷

Water quality studies in highly mineralized unmined areas in the region have shown that background weathering processes contribute significant amounts of metals and impart acidity to streams.¹¹⁸ Studies have shown that background sources accounted for 56-90 percent of the metals load and were derived from highly altered rocks associated with natural mineral deposits.¹¹⁹

EPA further attempts to negate the significant impact of the natural condition by asserting, without reference to any authority whatsoever, that "[h]istorically, groundwater flowed along fractures and faults, with minimal leakage through bedrock, likely due to low permeability."¹²⁰ This bald assertion is belied by the significant impact the natural condition has on water quality. As stated by USGS:

Caldera ring faults and associated veins of the Eureka graben and radial vein structures near the margin of the nested San Juan and Silverton calderas are laterally and vertically continuous. Thus, these features may be important ground-water flow paths.¹²¹

Similarly, as concluded by Formation Environmental, "[b]edrock groundwater flows may mobilize metals from mineralized areas and transport those metals to the Animas River on a continuous basis."¹²² EPA's finding is mistaken.

¹¹⁵ Bove, D.J., Yager, D.B., Mast, M.A., and Dalton, J.B., *Alteration map showing major faults and veins and associated water-quality signatures of the Animas River watershed headwaters near Silverton, southwest Colorado: U.S. Geological Survey Scientific Investigations Map 2976* (2007).

¹¹⁶ Mast, M.A., Verplanck, P.L., Wright, W.G., and Bove, D.J., *Characterization of Background Water Quality, Chapter E7 in Integrated Investigations of Environmental Effects of Historical Mining in the Animas River Watershed, San Juan County, Colorado; U.S. Geological Survey Professional Paper 1651* (Church, S.E., von Guerard, Paul, and Finger, S.E., eds. 2007).

¹¹⁷ Besser, J.M., Finger, S.E., and Church, S.E., *Impacts of historical mining on aquatic ecosystems—An ecological risk assessment, Chapter D in Integrated Investigations of Environmental Effects of Historical Mining in the Animas River Watershed, San Juan County, Colorado; U.S. Geological Survey Professional Paper 1651* (Church, S.E., von Guerard, Paul, and Finger, S.E., eds. 2007).

¹¹⁸ Mast, M.A., Verplanck, P.L., Wright, W.G., and Bove, D.J., *Characterization of Background Water Quality, Chapter E7 in Integrated Investigations of Environmental Effects of Historical Mining in the Animas River Watershed, San Juan County, Colorado; U.S. Geological Survey Professional Paper 1651* (Church, S.E., von Guerard, Paul, and Finger, S.E., eds. 2007).

¹¹⁹ Mast, M.A., Verplanck, P.L., Wright, W.G., and Bove, D.J., *Characterization of Background Water Quality, Chapter E7 in Integrated Investigations of Environmental Effects of Historical Mining in the Animas River Watershed, San Juan County, Colorado; U.S. Geological Survey Professional Paper 1651* (Church, S.E., von Guerard, Paul, and Finger, S.E., eds. 2007).

¹²⁰ Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site*, ¶ 9 (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

¹²¹ Yager and Bove, *Geologic Framework, Chapter E1 in Integrated Investigations of Environmental Effects of Historical Mining in the Animas River Watershed, San Juan County, Colorado; U.S. Geological Survey Professional Paper 1651* (Church, S.E., von Guerard, Paul, and Finger, S.E., eds. 2007).

¹²² Formation Environmental, LLC, *Draft 2017 Investigation Summary and Data Interpretation Report*

2. EPA Misconstrues SGC's History of Mining

Contrary to EPA's assertion,¹²³ SGC operated the Sunnyside Mine only from 1986 to 1991, using modern mining techniques and under the modern era of environmental regulation. SGC closed the Mine in accordance with the law, its permits, and a State-approved, EPA endorsed and authorized Consent Decree, and has spent in excess of \$30 million on reclamation and remediation. SGC's five years of responsible mining and thirty years of reclamation and remediation in the Silverton Caldera have resulted in less metals in the Animas River than would have otherwise been the case,¹²⁴ and SGC is not the cause of water quality issues in the Animas River.

3. EPA Fundamentally Misunderstands or Purposefully Misconstrues the Purpose and Effect of Bulkheading

EPA fundamentally misunderstands or purposefully misconstrues the purpose and effect of bulkheading, a process EPA endorsed and has itself applied in the Bonita Peak area. EPA asserts that "bulkheads modified the bedrock hydrogeology and resulted in changes in water from surrounding mines," and that after closure of the bulkheads flows from the "American Tunnel decreased substantially, but flow of [mine influenced water] from the surrounding mines increased substantially."¹²⁵

This reorientation of flows was anticipated, endorsed by EPA, reflects the reestablishment of the natural hydrologic equilibrium, and was an expected outcome for which SGC has no liability.

The reestablishment of the pre-mining phreatic surface allows waters to return to their pre-mining flow paths emerging as seeps and springs that existed prior to mining, rather than draining through exposed mine workings. The seeps and springs that are located away from surface flows most likely undergo metals reductions when oxygenated after surfacing and migrating towards surface flow paths, creating ferricrete deposits that exist naturally in mineral rich environments.¹²⁶

At the time of the Consent Decree, EPA's own retained expert concluded, "[T]echnically, the plan [utilized in the Consent Decree] makes sense and has merit, and I encourage its implementation without further, long-term discussion."¹²⁷

Colorado regulators reached a similar conclusion in the May 18, 2015 Colorado DRMS report regarding the Red & Bonita bulkhead, which EPA itself installed:

Mayflower Tailings Impoundments Area (March 2018).

¹²³ Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site*, ¶ 8 (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

¹²⁴ *SGC Mining and Reclamation Activities and Metals Loading in the Animas River* (Steven Lange, M.S., Senior Project Manager, Knight Piesold Consulting, Jan. 2018).

¹²⁵ Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site*, ¶ 10 (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

¹²⁶ *The Engineered Concrete Bulkheads Installed by SGC* (Feb. 2018).

¹²⁷ Memorandum from Ralph J. Anctil to Carol Russell, *Re: The Sunnyside Mine, San Juan County, Colorado* (March 4, 1996).

Water impounding concrete bulkheads installed at strategic locations in draining and discharging underground mine workings have the potential to flood the workings and create a mine pool that will eventually establish a ground water system with water table and flow paths similar to the pre-mining system. Saturation of sulfide minerals in the flooded workings and country rock will create relatively anoxic conditions and limit the generation of ARD. Bulkhead installation will eliminate rapid and continuous collection and discharge of ground water through open mine workings and minimizes direct discharge of ARD from mine portals.... Bulkhead installation in mines that are determined to be good candidates has the potential to significantly reduce metal loading to receiving streams.¹²⁸

The installation of engineered bulkheads in the American and Terry Tunnels and Gold Prince Mine was required by the Consent Decree. In consideration of SGC's installation of these bulkheads and related remediation activity, Colorado, acting under EPA delegated authority, agreed not to sue or take any administrative actions against SGC for future seeps or springs that might emerge or increase as a result of SGC's remedial activities.

EPA's statement, moreover, ignores the fact that, prior to the construction and extension of the American Tunnel, "significant" water was discharged from the Gold King Mine, and also from other adjacent mines, as recognized in a Deere & Ault report,¹²⁹ and as evidenced in a Gold King Mine photograph.¹³⁰ The EPA commissioned Deere & Ault report indicates that, with the exception of the Mogul, there was little change in flows from adits until 2005, two years after the closure of Bulkhead No. 3, and the increased discharge reflected the reestablishment of the natural hydrologic regime following the sealing of the American Tunnel:

In 2005, discharges from both the Red and Bonita and Gold King Mines increased from tens of gpm to hundreds of gpm. This was likely in response to a rising groundwater elevation inside the mountain. As discussed previously, the most direct cause of the rise was the fact that the American Tunnel was no longer acting as a drain in this area.¹³¹

This outcome was entirely predictable, and in fact it was predicted and encouraged.

¹²⁸ Allen Sorenson and Kirstin Brown, Colorado DRMS, *Memorandum Re: Design Basis for Water Impounding Concrete Bulkhead, Red and Bonita Mine, San Juan County Colorado* (May 18, 2015; updated September 17, 2015).

¹²⁹ Deere & Ault Consultants, Inc., *Red and Bonita Mine Bulkhead Closure Evaluation 2017 Update; D&A Job No. CG-0628.001.00* (April 10, 2017).

¹³⁰ Deere & Ault Consultants, Inc., *Red and Bonita Mine Bulkhead Closure Evaluation 2017 Update; D&A Job No. CG-0628.001.00* (April 10, 2017) ("Photo 1 Discharge of Gold King Level 7 waste pile circa 1910 (Vendi 2015)").

¹³¹ Deere & Ault Consultants, Inc., *Red and Bonita Mine Bulkhead Closure Evaluation 2017 Update; D&A Job No. CG-0628.001.00* (April 10, 2017); see also Deere & Ault Consultants, Inc., *Red and Bonita Mine Bulkhead Closure Evaluation; D&A Job No. CG-0628.001.00* (March 24, 2016).

4. SGC is Not Liable for Mine Portal Releases

The only actual or threatened releases¹³² EPA ostensibly identifies in OU3 allegedly arise from "mine portals" at the Mogul, Red & Bonita, and Gold King Mines.¹³³ SGC never owned or operated the Gold King or Red & Bonita portals. EPA concedes, moreover, that there is no known connection between the Sunnyside Mine and the Red & Bonita and Gold King Mines,¹³⁴ and the Sunnyside Mine was sealed off from the Mogul Mine through State-approved, EPA endorsed engineered, concrete bulkheads.

5. EPA's Water Quality Characterization is Not Sufficient

EPA baldly asserts that "sampling data from the early 2000s demonstrate that since installation of the bulkheads in the Sunnyside Mine workings, concentrations of hazardous substances, such as cadmium, copper, zinc and manganese, have increased substantially in Cement Creek and the Animas River below the confluence with Cement Creek." EPA, however, fails to demonstrate a statistically meaningful ongoing trend or the causation thereof, and ignores the cessation of water treatment by a third party and other relevant facts.

6. EPA Attempts to Diminish the Import of the Consent Decree

EPA erroneously suggests that "No prior enforcement actions have been taken by EPA for OU3."¹³⁵ EPA does acknowledge that SGC "has performed mine reclamation projects in the OU3 portion of the Site pursuant to a voluntary Consent Decree agreement with the Colorado Water Quality Control Division (WQCD) effective May 8, 1996 and pursuant to its mine permits." As noted above, EPA was well aware of the Consent Decree, incurred response costs in response to the remedial actions reflected in the Consent Decree, and is bound by its provisions. Any efforts to un-do the resolution the Consent Decree achieved is barred.

C. UAO Miscellaneous Provisions¹³⁶

1. The Financial Assurance Provision is Unworkable and Counterproductive

There is no authority in CERCLA for EPA's financial assurance requirement.¹³⁷ SGC has diligently satisfied its reclamation and remediation obligations. It has spent \$30 million on reclamation and remediation. The Financial Assurance provision diverts resources from cleanup and redirects those resources to counterproductive bureaucratic box-checking.

¹³² SGC is not liable for any ostensible releases from seeps and springs.

¹³³ See Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site*, ¶¶ 11-12, 17(e) (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

¹³⁴ Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site*, ¶ 6 (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

¹³⁵ Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site*, ¶ 16 (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

¹³⁶ SGC disputes, and reserves the right to contest, provisions of the UAO and Statement of Work, even if not expressly addressed in SGC's Statement of Position and Comments.

¹³⁷ Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site*, ¶ 72 (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

2. The Provision of Information Requirements are Unjust

UAO Section XV requires SGC to provide to EPA, the State, and BLM copies of all “records, reports, documents, and other information (including records, reports, documents, and other information in electronic form) within Respondent’s possession or control or that of their contractors or agents relating to activities at the Site or the implementation of this Order...Respondent shall also make available to EPA, the State, and BLM, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.” EPA’s demand ignores the fact that EPA and SGC are named codefendants in litigation arising out of the Gold King Blowout that EPA caused. EPA cannot use the power of the UAO to undermine SGC’s ability to generate work product to defend itself in the lawsuits.¹³⁸

3. The UAO and Statement of Work are Overbroad, and Their Objectives and Ordered Work are Vague and Undefined

The UAO and Statement of Work (SOW) require work for which there is no rationale, and divert resources from addressing a recognizable and solvable problem to unnecessary study. The UAO and SOW, moreover, deviate markedly from the requirements of the NCP. They propose data collection and analysis that is not necessary to identification or selection of a remedy.

Additionally, the UAO and SOW contain open-ended, undefined future requirements, and are also vague and ill-defined on the actual obligations SGC is ordered to undertake. OU3 is defined as:

[T]he Bonita Peak Groundwater System. The Bonita Peak Groundwater System generally includes the saturated and unsaturated workings of the Sunnyside Mine, associated drainage and haulage tunnels, nearby mines not known to be connected to the Sunnyside Mine by workings (e.g. Red & Bonita Mine and Gold King Mine), and the surrounding geographic area that may be hydraulically connected or influenced by current and/or historical releases from or management of these mines.¹³⁹

Within this expansive, ill-defined OU3, SGC is, apparently, supposed to monitor water quality and water levels, determine hydraulic and hydrologic connectiveness, and determine the nature and extent and fate and transport of mining related contaminants. Further, SGC is apparently supposed to investigate "related media," which "includes any mining-derived solids, semi-solids, or liquids that can cause a release of contaminants."¹⁴⁰

This ill-defined scope of work overreaches and is unduly broad. “Nearby mines not known to be

¹³⁸ EPA recognized the legitimacy of SGC's concern, and agreed to modify the UAO. See Email from Douglas Naftz to Chris Stoneback, *Re: SGC UAO Discussion Items* (April 9, 2018).

¹³⁹ Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site*, ¶ 6 (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

¹⁴⁰ Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site*, Appendix A: Statement of Work for Remedial Investigation (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

connected to the Sunnyside Mine by workings (e.g. Red & Bonita Mine and Gold King Mine)" include workings that were never owned or operated by SGC. Historical releases from other mines have nothing to do with SGC. Moreover, it is not at all clear what work, if any, is even being ordered.

4. The UAO and Statement of Work Order Unworkable Timelines that Compromise the Ability to Ensure Well Thought Out and Safe Work

The UAO, and particularly the Deliverables Schedule in the SOW, is potentially unworkable.¹⁴¹ This is a very complex site, and the work EPA is ordering, particularly the well installation and monitoring, is extraordinarily difficult, requires resolution of complex access and logistical issues, and raises considerable safety concerns. It needs to be well thought out, and the accelerated timelines in the UAO are unreasonable and counterproductive to doing this work correctly and safely.¹⁴² As noted by SRK:

The schedule of deliverable is extremely tight given the well thought out plans that would need to be developed. It is not clear to SRK why this timeframe is so tight and whether a more reasonable schedule would prevent unplanned events from occurring, such as was experienced at the Gold King portal.¹⁴³

5. The Statement of Work Coupled with the Definition of OU3 Creates Irrational Results

The SOW contemplates, among other things, "mining influenced water (MIW) release prevention and contingency planning," and "workings, portals and bulkhead integrity assessments" within OU3.¹⁴⁴ It is manifestly unreasonable and contrary to law to expect SGC to provide "mining influenced water...release prevention and contingency planning" for the Gold King Mine, along with the various liabilities associated with such actions, or to conduct "workings, portals and bulkhead integrity assessments" for the Red & Bonita Mine.¹⁴⁵ SGC has no liability for either mine, and it is EPA that has managed hazardous wastes at these sites.

SGC, moreover, has "already provided extensive information on the purpose of multiple redundant bulkheads in the American Tunnel (AT) in the original closure design documents, which satisfy

¹⁴¹ See, e.g., SRK Consulting, *Review of EPA RI Order* (April 2018); Pioneer Technical Services, Inc., *Bonita Peak Mining District Superfund Site, CERCLA-08-2018-0005, Unilateral Administrative Order for Remedial Investigation* (April 2018).

¹⁴² Efforts by SGC to clarify the UAO's objectives and work, and make timelines more workable, were unavailing. See Email from Douglas Naftz to Chris Stoneback, *Re: SGC UAO Discussion Items* (April 9, 2018).

¹⁴³ SRK Consulting, *Review of EPA RI Order* (April 2018).

¹⁴⁴ See Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site, Appendix A: Statement of Work for Remedial Investigation*, § 3.0 (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

¹⁴⁵ See Unilateral Administrative Order for Remedial Investigation, *Bonita Peak Mining District Superfund Site, Appendix A: Statement of Work for Remedial Investigation*, § 3.0 (Docket No. CERCLA-08-2018-0005) (March 15, 2018).

this requirement," and nothing "has changed now such that EPA would expect anything different than what was submitted in the past and previously accepted by EPA."¹⁴⁶

VIII. SGC Reservation of Rights, Claims, and Defenses

Nothing in SGC's Statement of Position, Comments, or supporting documentation (collectively "Written Materials") shall be construed to limit the rights, claims, and defenses SGC may have against EPA or any other person regarding the UAO or in any future actions, including but not limited to claims and defenses that requirements of the UAO were not lawfully issued or were inconsistent with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 *et seq.*, the National Contingency Plan (NCP), 40 C.F.R. § 300 *et seq.*, legally applicable or relevant and appropriate requirements pursuant to Section 121(d)(2) of CERCLA, and/or relevant EPA regulations or guidance issued under CERCLA, are barred by the statute of limitations and the Colorado District Court Consent Decree, and/or that any releases ostensibly attributed to SGC are divisible. Further, nothing in these Written Materials shall be construed as an admission of any factual allegation or legal conclusion in the UAO, or an admission of any liability or PRP status for any matter described in the UAO, and by identifying certain bases for SGC's lack of liability, PRP status, or sufficient cause SGC does not limit its defenses to those bases, but expressly reserves the right to assert additional bases upon which it is not liable or has sufficient cause.

IX. Conclusion

SGC is not factually or legally liable for water quality issues in the Animas River, and it would be a gross abuse of power for EPA to make the UAO effective. SGC's five years of environmentally permitted and responsible mining and thirty years of reclamation and remediation in the Silverton Caldera have positively impacted water quality in the Animas River. SGC's operating permits and the 1996 Court approved Consent Decree provide a complete legal defense to liability. In addition, claims against SGC are barred by the statute of limitations. SGC has a long history of cooperating to improve Animas River water quality and has undertaken extensive remedial work where appropriate and justified. The UAO, however, is neither appropriate, legal, nor justified. SGC respectfully requests that EPA reconsider issuance of the UAO.

¹⁴⁶ SRK Consulting, *Review of EPA RI Order* (April 2018).

APPENDIX A: BRIEF HISTORY OF SGC, EPA, AND BULKHEADING

SGC was formed in 1985. It acquired the then closed Sunnyside Mine in November 1985. The former owner of the property had been in violation of its mining permit and multiple discharge permits.¹⁴⁷ SGC immediately began work to bring the permits into compliance and was awarded a Most Improved Site Award by the Colorado Mined Land Reclamation Division.

SGC began mining at the Sunnyside Mine in August of 1986 and immediately instituted improvements to both the mining process and the reclamation plan.¹⁴⁸ SGC's improvements "resulted in a modern, efficient operation with greatly reduced environmental impacts,"¹⁴⁹ but SGC operated the Mine at a financial loss.

SGC operated the mine by itself for approximately two years, until June of 1988, when the Alta Bay Venture was formed, of which SGC was only a minority participant. In late 1988, the San Juan County Mining Venture, of which SGC was but one of many participants, became the operator, and SGC's ownership percentage was further reduced.

In August of 1991, the Sunnyside Mine closed and SGC operations shifted to a purely reclamation and remediation focus. The San Juan County Mining Venture terminated at the end of 1991, and SGC continued with its remedial activity.

In September of 1986, the Colorado Mined Land Reclamation Division (MLRD) and SGC discussed conceptual plans to bulkhead both the American and Terry Tunnels as part of ultimate mine closure and environmental remediation. Those plans arose out of the State of Colorado's insistence, as reflected in a July 15, 1986 letter to SGC, that "Indefinite mine drainage treatment is not acceptable as final reclamation."¹⁵⁰ In January of 1987, long term plans for mine closure, including the use of bulkheads, were included in SGC's permit application to the State. The permit application notes, "As discussed with the MLRD staff at the September 18, 1986 meeting, it is anticipated that, to alleviate the need for indefinite mine drainage treatment, a hydraulic seal will be installed in both the Terry and American Tunnels. The seal will act to prevent substantial releases of underground waters from the tunnels to the ground surface."¹⁵¹

SGC retained experts to evaluate area geology and hydrology, and to consider design options for bulkheading the Interior Workings of the Sunnyside Mine and the American Tunnel. The expert's conclusions are reflected in the 1992 Simon Hydro-Search report.¹⁵² SGC also submitted to the

¹⁴⁷ *SGC Mining and Reclamation Activities and Metals Loading in the Animas River 6* (Steven Lange, M.S., Senior Project Manager, Knight Piesold Consulting, Jan. 2018).

¹⁴⁸ *SGC Mining and Reclamation Activities and Metals Loading in the Animas River 6* (Steven Lange, M.S., Senior Project Manager, Knight Piesold Consulting, Jan. 2018).

¹⁴⁹ *SGC Mining and Reclamation Activities and Metals Loading in the Animas River 6* (Steven Lange, M.S., Senior Project Manager, Knight Piesold Consulting, Jan. 2018).

¹⁵⁰ Letter from Camille M. Ferrell, Colorado Mined Land Reclamation Division, to Douglas S. Murray, Sunnyside Gold Corporation, *Re: File No. M-77-378, Sunnyside Gold Corporation's "Sunnyside Mine" Amendment Adequacy Letter* (July 15, 1986).

¹⁵¹ SGC, *Technical Adequacy Review Consolidated Permit, Mined Land Reclamation* (1978).

¹⁵² Simon Hydro-Search, *Preliminary Characterization of the Hydrology and Water Chemistry of the Sunnyside Mine and Vicinity, San Juan County Colorado* (Feb. 11, 1992).

State of Colorado a Portal Seal Conceptual Design report prepared by JCR Consultants, Inc.¹⁵³ The design called for bulkheading the American Tunnel. Another Simon Hydro-Search report concluded that the bulkheads would serve to re-establish the natural hydrology in the region.¹⁵⁴

In March of 1993, as part of its reclamation plan, SGC submitted a proposal to the State for a series of six bulkheads. SGC also completed an “Area Inventory of Seeps, Springs, and Flowing Adits, Pre-Bulkhead Placement,” and submitted that report to the State.¹⁵⁵ In early 1993, the Colorado Division of Minerals and Geology (DMG) inspected and approved installation of some of the bulkheads, and by the summer of 1993, DMG had approved installation of them all. In November of 1993, DMG noted that the area appeared to have an ideal physical setting for use of hydraulic seals/bulkheads.¹⁵⁶ Bulkheading became a formal permitting requirement for SGC’s mine remediation and closure obligations.

In addition to installing bulkheads, both DMG and EPA approved of SGC injecting lime into the mine workings to further neutralize any water and to protect the bulkheads from corrosion.¹⁵⁷ In fact, EPA specifically reviewed an SGC request for an injection permit for the use of lime. EPA advised SGC that “the injection of alkalinity, as part of a remedial activity, would not be considered the disposal of a waste material and would not fall within any of the permitting requirements of RCRA, including those provisions on corrosive waste.”¹⁵⁸ SGC submitted quarterly reports to EPA and DMG regarding its remediation efforts, including the lime injection. EPA eventually released SGC from any further obligation regarding this underground injection control.¹⁵⁹

Before installation of the bulkheads, and cognizant that bulkheading would lead to seeps and springs and regional adit discharge as the groundwater flows were returned to their natural pathways, SGC and the State of Colorado entered into a comprehensive settlement agreement to address how those restored flows would be handled.

SGC and the State of Colorado entered into a Consent Decree that a Colorado District Court approved on May 8, 1996.¹⁶⁰ The parties specifically explained the purpose of the Consent Decree:

¹⁵³ John F. Abel, *Bulkhead Design for the Sunnyside Mine* (March 10, 1993).

¹⁵⁴ Simon Hydro-Search, *Evaluation of Hydraulic and Hydrochemical Aspects of Proposed Bulkhead, Sunnyside Mine, San Juan County, Colorado* (March 12, 1993).

¹⁵⁵ SGC, *Sunnyside Mine Area Inventory of Seeps, Springs and Flowing Adits, Pre-Bulkhead Placement* (1993).

¹⁵⁶ Allen Sorenson, *Information On: Technical Revision TR-014 to the Sunnyside Mine Permit, which incorporates design details and impact characterization for installation of hydraulic seals within the underground workings into the reclamation permit*; Presentation to Mined Land Reclamation Board (Nov. 18, 1993).

¹⁵⁷ Letter from Wallace H. Erickson, *Environmental Protection Specialist for Colorado Division of Minerals and Geology*, to Larry Perino, SGC, *Re: TR-19 Approval, Sunnyside Mine, Permit No. M-77-378* (May 30, 1996).

¹⁵⁸ Letter from Stephen S. Tuber, U.S. EPA, to Larry Perino, SGC, *Re: Underground Injection Control (UIC), Class V Injection Well Rule Authorization, Injection Site: Sunnyside Mine near Silverton, Colorado, San Juan County (EPA File # CO5000-03745)* (June 26, 1996).

¹⁵⁹ Letter from D. Edwin Hogle, Director of Ground Water Program, U.S. EPA, to Larry Perino, SGC, *Re: Underground Injection Control (UIC), Termination of Rule Authorization, Sunnyside Gold Mine (EPA File # 5000-03745)* (Feb. 12, 2002).

¹⁶⁰ Consent Decree and Order, *Sunnyside Gold Corporation v. Colorado WQCD* (D. Colo. May 8, 1995) (Case No. 94 CV 5459).

[T]o resolve this dispute, to allow SGC to proceed with final reclamation of the Sunnyside Mine, to provide for closure of the American and Terry Tunnels by hydraulic seals, to provide for mitigation of certain other historic mining conditions, to protect the waters of the State of Colorado, and to provide for the final termination of CDPS Permits No. CO-0027529 and CO-0036056, the parties agree to the terms and conditions of this Consent Decree.¹⁶¹

The Consent Decree ultimately required completion and closure of bulkheads as contemplated in the mine permit, as well as eventual installation of Bulkhead Nos. 2 and 3 in the American Tunnel, and additional remediation work at other locations. The Consent Decree specifically contemplated that installation of the bulkheads would likely create new seeps and springs and adit discharges as the water table elevation increased and approached historic equilibrium, and that SGC would not need any permits relating to those flows. By 2003, SGC had installed Bulkhead Nos. 2 and 3, and the collective bulkhead network decreased the discharge from the American Tunnel from about 1,600 gallons per minute (gpm) to less than 100 gpm. The remaining discharge at the portal of the American Tunnel is near surface water unrelated to the Interior Workings.

EPA had a significant role in the Consent Decree's development and implementation, and expended resources to address the Consent Decree's remedial objectives. EPA ultimately encouraged the Consent Decree and applauded its results. On June 16, 1995, EPA had an internal meeting of several Region 8 officials to discuss the Consent Decree approach to the closure of the Sunnyside Mine. EPA noted on the meeting invitation that "the purpose of the meeting is to try to reach a consensus on EPA's position concerning the proposed consent decree."¹⁶² EPA then wrote to David Holm, the Director of the Colorado WQCD, on August 23, 1995, to provide specific comments on the Consent Decree.¹⁶³

On October 25, 1995, the Acting Executive Director of the Colorado Department of Public Health and Environment (CDPHE) wrote to William Yellowtail, the EPA Region 8 Administrator, regarding the Consent Decree and EPA's role in its negotiation and approval. The letter advised EPA that the State and SGC had been in "focused discussions" for nearly 18 months "concerning the company's plan to conduct final closure operations for the Sunnyside Gold Mine." The letter went on to describe how the Consent Decree was "intended to spearhead the watershed-based approach to water quality improvement in the upper basin as desired by the stakeholders. The trade of non-point source remediation projects in the short term against mine related seepage which may occur over a longer time frame is an innovative regulatory solution, and unprecedented in the region." Finally, the letter encouraged Administrator Yellowtail to appoint Max Dodson to act as the EPA point person based on Dodson's "extensive past experience in mining and water quality issues both in the point source and non point source arenas. We feel it is vitally important that EPA maintain a constructive role in the development of our agreement."¹⁶⁴

¹⁶¹ Consent Decree and Order, *Sunnyside Gold Corporation v. Colorado WQCD* (D. Colo. May 8, 1995) (Case No. 94 CV 5459).

¹⁶² U.S. EPA, *Memorandum Re: Sunnyside Mine Meeting* (June 16, 1995).

¹⁶³ Letter from Max Dodson, U.S. EPA, to David Holm, Director of Water Quality Control Division, *Re: Sunnyside Mine Lawsuit* (Aug. 23, 1995).

¹⁶⁴ Letter from Patti Shwayder, Acting Executive Director of Colorado DPHE, to William Yellowtail, U.S.

Shortly thereafter, on November 1, 1995, counsel for EPA emailed several EPA officials regarding EPA's role in the Consent Decree negotiations and the timeframes imposed by the Court.¹⁶⁵ Eventually, EPA had the bulkheading concept reviewed by its own independent expert. In March of 1996, expert Ralph Ancil advised Carol Russell of EPA that bulkheading was the best option for the site.

Although certain questions come to mind (such as the effect flooding the mine would have on adjacent mine workings), the plan to flood the Sunnyside Mine workings is an acceptable opportunity to reduce levels of acid rock (mine) drainage to negligible levels by inhibiting the oxidation of sulfide minerals. . . . I concur with this plan for several reasons, the most important of which is that, although it may not be the ultimate solution, it does reduce risks to acceptable and manageable levels, and should problems arise, it will allow time to learn enough to take the next step(s). Technically, the plan makes sense and has merit, and I encourage its implementation without further, long-term discussion.¹⁶⁶

An internal EPA memorandum reflects EPA's overview of the situation, and notes that "policy questions regarding innovative actions and final mine closure requirements have arisen as a result of recent discussions with the Colorado Department of Public Health and Environment, and Sunnyside Gold Corporation." EPA remarked that with respect to the Sunnyside Mine, SGC "took over after an environmental disaster caused the original company to go bankrupt. Sunnyside did not make a profit at the mine and started shutdown procedures approximately 5 years ago." EPA described SGC's proposal, EPA's concerns, EPA's "counter-proposal," the State's position, and outstanding issues. EPA concluded by outlining possible next steps, including letting "the Mine take care of it," which would result in the mine being "closed—no additional environmental clean-up. (Sealing of the mine tunnel is considered by most experts to be the best management practice given certain conditions.)"¹⁶⁷ This was the approach EPA ultimately selected.

After its internal review and expert evaluation, on April 5, 1996, Max Dodson of EPA congratulated both SGC and the State of Colorado on the Consent Decree:

The Environmental Protection Agency (EPA) commends both the State of Colorado and Sunnyside Gold Corporation (SGC) on your innovative approach to problems encountered in final closure of the Sunnyside Gold Mine. Further, the EPA is pleased that Colorado has chosen to use a watershed/trading approach as one step toward achieving the goals of improving water quality in the Animas River. As active members of the Animas River Stakeholders Group, EPA understands and supports the concepts of community based environmental protection.¹⁶⁸

EPA Region VIII Administrator (October 25, 1995).

¹⁶⁵ Email from Richard Sisk, U.S. EPA, to Max Dodson, U.S. EPA, *Sunnyside Mine* (Nov. 1, 1995).

¹⁶⁶ Memorandum from Ralph J. Ancil to Carol Russell, Re: The Sunnyside Mine, San Juan County, Colorado (March 4, 1996) (emphasis added).

¹⁶⁷ U.S. EPA, *Sunnyside Gold Corporation - Animas Basin* (Undated).

¹⁶⁸ Letter from Max Dodson, U.S. EPA, to David Holm, Director of Water Quality Control Division, Re:

Clearly, EPA did not require a permit or other remediation with respect to the reestablishment of the natural hydrologic equilibrium, did not intervene in the litigation, and did not list the site on the National Priorities List (NPL). In reliance on EPA's position, the parties proceeded to implement the Consent Decree.

As part of the Consent Decree terms, a number of remedial projects were required throughout the region. Some of these terms required affirmative approval from the BLM in order to continue with the Consent Decree and ultimately fulfill its terms. Not only did BLM provide approval, but noted that their proposed action "would enhance and improve the health of the land by eliminating the calculated daily zinc loading to the Animas River[.]"¹⁶⁹

Eventually, after the expenditure of millions of dollars in remediation costs, the installation of numerous bulkheads, and the completion of other cooperative projects designed to improve water quality in the region, the parties advised the Colorado District Court that the obligations SGC assumed in the Consent Decree had been met. "The mine tunnel plug in the American Tunnel, initially placed in 1996, has functioned and continues to function as designed while the mine pool has risen behind the plug to the point of physical equilibrium."¹⁷⁰

Following the completion of this remedial work, the Court reviewed SGC's permit status and continuing obligations and concluded:

Once the water treatment facility is transferred to Gold King and CDPS Permit No. CO-027529 [American Tunnel Permit] is terminated or transferred to Gold King by the Colorado Water Quality Control Division ("Division"), Sunnyside Gold Corporation's ("SGC") obligation to continue operation of the water treatment facility to treat Cement Creek or any seepage from the American Tunnel (and the reclamation of the ponds and surface disturbances) will terminate under the Consent Decree....¹⁷¹

SGC's permit was transferred to Gold King Mines Corporation (GKMC) and SGC's remedial obligations were terminated. By letter dated February 26, 2003, the State of Colorado, through its WQCD, agreed that the conditions for termination of the Court's jurisdiction relative to the Consent Decree had been satisfied:

As a result of the Permit Termination Assessment, [WQCD] has concluded that there has been successful Consent Decree Completion. In a separate action, [WQCD] has already released SGC from the financial surety requirement and returned the letter of credit to the Bank. It is appropriate that CDPS Permit Nos. CO-0044768 [the remediation permit] and CO-0036056 [Terry Tunnel permit] be

Consent Decree (April 5, 1996).

¹⁶⁹ Letter from Jim Lovato, BLM, to Larry Perino, SGC (May 29, 1996) (emphasis in original).

¹⁷⁰ Joint Petition for Fourth Amendment to Consent Decree, *Sunnyside Gold Corporation v. Colorado WQCD* (D. Colo. Dec. 4, 2002) (Case No. 94 CV 5459).

¹⁷¹ Order Granting Joint Petition for Fourth Amendment to Consent Decree, *Sunnyside Gold Corporation v. Colorado WQCD* (D. Colo. Dec. 6, 2002) (Case No. 94 CV 5459).

terminated and Court jurisdiction should cease. In addition, in a separate action [WQCD] has transferred CDPS Permit No. CO-0027529 [American Tunnel Permit] from [SGC] to Gold King Mines Corporation.¹⁷²

WQCD then concluded, “[E]ach criterion in the termination assessment has been successfully completed. Therefore, [WQCD] has concluded that there has been Successful Consent Decree Completion.”¹⁷³ On July 8, 2003, the Colorado Attorney General’s Office, as counsel for WQCD, filed a Notice of Termination of Court’s Jurisdiction, and recognized “that there has been a successful permit termination assessment, pursuant to paragraph 14 of the Consent Decree, as well as termination of permits and Agreement Completion. As such, the Court’s jurisdiction has ceased, pursuant to the terms of Paragraph 14 of the Consent Decree of May 8, 1996.”¹⁷⁴

In consideration for SGC’s completion of the bulkheading and related remediation activity, the Colorado WQCD specifically covenanted in the Consent Decree not to sue or take any administrative action against SGC for seeps or springs that might emerge or increase in the Upper Animas River or Cement Creek drainages as a result of SGC’s activities.

In consideration of the actions to be performed by SGC under this Consent Decree, [WQCD] covenants not to sue or to take administrative action against SGC for seeps or springs which may emerge or increase in the Upper Animas River or Cement Creek drainages following installation of bulkhead seals in the American or Terry Tunnels, during the terms of this Consent Decree and thereafter, if SGC fulfills the requirements of the Consent Decree, there is a Successful Permit Termination Assessment..., and permit termination is achieved.¹⁷⁵

SGC, with EPA’s endorsement and BLM’s approval, successfully completed the work required to remediate and obtain “final closure” of the Sunnyside Mine, specifically by bulkheading the American and Terry Tunnels. EPA cannot second guess and undo that result now.

¹⁷² Letter from Sarah Johnson, Manager of Assessment Unit for Colorado Water Quality Control Division, *Re: Consent Decree Termination* (Feb. 26, 2003).

¹⁷³ Letter from Sarah Johnson, Manager of Assessment Unit for Colorado Water Quality Control Division, *Re: Consent Decree Termination* (Feb. 26, 2003).

¹⁷⁴ Notice of Termination of Court’s Jurisdiction, *Sunnyside Gold Corporation v. Colorado WQCD* (D. Colo. July 8, 2003) (Case No. 94 CV 5459).

¹⁷⁵ Consent Decree and Order, *Sunnyside Gold Corporation v. Colorado WQCD* (D. Colo. May 8, 1995) (Case No. 94 CV 5459).

APPENDIX B: BRIEF HISTORY OF SGC / EPA INTERIOR MINE WORKING INTERACTIONS

SGC has a long history of cooperating with EPA, State agencies, and other stakeholders to remediate the Bonita Peak area. SGC has demonstrated a willingness to undertake extensive remedial work where appropriate and justified, and SGC's actions have had an unquestioned positive impact on the environment. EPA, however, ignored SGC's good faith, cooperative history, willingness to engage in appropriate and justified remedial work, and significant improvements to the Bonita Peak area's environmental condition by issuing, without notice or explanation, an inappropriate and unjustified UAO to SGC.

On September 1, 2016, EPA asked SGC to consider a draft Administrative Order on Consent (AOC) for Remedial Investigation, with accompanying work plans, regarding the Mayflower Impoundments and the Sunnyside Interior Workings. EPA's request followed the August 5, 2015, EPA caused Blowout at the Gold King Mine Level 7 Adit, the institution of related litigation by New Mexico and the Navajo Nation, and EPA's listing of the so-called Bonita Peak Mining District (BPMD) on the National Priorities List (NPL).

The parties' positions on an AOC were exchanged at a November 10, 2016, technical/lawyer meeting. SGC resisted an AOC as unnecessary given SGC's years of voluntary remedial work at the Mayflower and within the entire Animas River watershed. SGC ultimately entered into a 2017 AOC with respect to the Mayflower and proceeded to conduct remedial study. SGC has spent approximately \$6 million in studying the Mayflower, both voluntarily and at EPA's direction. SGC has offered to enter into a similar 2018 AOC at the Mayflower for ongoing monitoring of environmental conditions. With respect to the Interior Workings, SGC explained the complexities and scientific futility associated with the drilling program and studies EPA envisioned.

At a January 19, 2017, technical meeting, EPA reiterated its wish to "fully characterize" the Interior Workings in an attempt to "understand where the water is, and where it is going." EPA was contemplating an extensive, expensive, and dangerous drilling program in the futile hope of achieving this characterization. SGC again attempted to dissuade EPA from the unnecessary undertaking.

On February 1, 2017, EPA advised that good progress was being made on the Mayflower and asked for SGC's comments on a redrafted AOC. The redrafted AOC *eliminated* any reference to the Interior Workings. Throughout these interactions, EPA never provided SGC with a general or special notice letter identifying SGC as a PRP.

To further demonstrate the inappropriateness of the work EPA contemplated at the Interior Workings, on May 15, 2017, SGC sent a comprehensive letter to EPA demonstrating SGC's absence of liability or responsible party status for the Interior Workings, explaining that investigating the Interior Workings was not justified and unnecessary, and demonstrating that the bulkheads were safe.¹⁷⁶

EPA has *disputed none* of the points set out in the letter. EPA never questioned the absence of SGC liability or PRP status for the Interior Workings. EPA never questioned that investigating

¹⁷⁶ Letter from Westesen to Sisk (with supporting materials) (May 15, 2017).

the Interior Workings is unjustified and of no value in remediating the site. EPA never questioned that the bulkheads are structurally sound and performing as intended. At a February 2018 EPA/SGC technical meeting, where BPMD issues were generally discussed, including the Interior Workings, EPA never mentioned any UAO, nor any potential ordering of SGC to perform any work at OU3. In fact, EPA never responded to SGC's May 15, 2017 letter at all. Instead, EPA sat quiet for almost a year before issuing the UAO on March 15, 2018.¹⁷⁷

EPA, moreover, failed to say anything to SGC about potential remedial work at the Interior Workings despite a September 8, 2017 letter from SGC to EPA imploring EPA, consistent with EPA's guidance and in an effort to achieve better remedial results, to "[M]eaningfully communicate ahead of time EPA's planned actions or alternatives and the purported rationale for those actions...and...solicit input from local stakeholders, meaningfully consider that input, and explain next steps or options."¹⁷⁸

EPA guidance states, "Giving the public an opportunity to communicate their concerns, problems, and alternatives can improve the Agency's decisions and environmental outcomes."¹⁷⁹ In fact, "development of strong stakeholder relationships is key to EPA's remediation success."¹⁸⁰ EPA is *required* to make "reasonable" efforts to identify and notify PRPs "as early as possible *before* selection of a response action."¹⁸¹ That was not done here.

EPA guidance provides, moreover, that a UAO should only be used where there is the absence of a timely settlement agreement.¹⁸² EPA has not provided or offered a settlement agreement, nor did it attempt to enter into an administrative order on consent for the contemplated work. More importantly, EPA guidance on negotiation and enforcement strategies for a remedial investigation specifies that when "the Region decides to pursue a PRP-led RI/FS, it should conduct settlement negotiations with PRPs and, *if negotiations fail*, consider issuing a Unilateral Administrative Order[.]"¹⁸³ Rather than engage in *any* negotiations, EPA issued this UAO without prior notice or

¹⁷⁷ EPA did issue SGC a General Notice dated July 18, 2017, but it failed to identify any sites for which EPA alleged that SGC might be responsible, and it certainly gave no indication of any investigative work EPA anticipated ordering SGC to complete at the Interior Workings. Moreover, SGC responded to the General Notice by reiterating that SGC was not the cause of water quality problems in the Animas River, that SGC's activities had been a significant positive for the environment, that SGC was not liable for any EPA investigation of the Interior Workings or the American Tunnel, and that SGC's comprehensive bulkheading and acid neutralization program, endorsed and applauded by EPA, reestablished the area's natural hydrologic equilibrium. (Letter from Westesen to Sisk (Sept. 8, 2017)). Again, EPA disputed none of these facts. Moreover, the General Notice addressed an Administrative Record that "will serve as the basis for EPA's selection of a cleanup action for the Site," but that Administrative Record was not the one used for the present UAO. That Administrative Record was not made available to SGC until March 22, 2018, providing SGC without reasonable time to analyze the bases for EPA's proposed action.

¹⁷⁸ Letter from Westesen to Sisk (Sept. 8, 2017)

¹⁷⁹ U.S. EPA, *Superfund Community Involvement Handbook* (January 2016).

¹⁸⁰ U.S. EPA, *Superfund Task Force Recommendations; Executive Summary* (June 21, 2017).

¹⁸¹ 42 U.S.C. § 9613(k)(2)(D); *see also* 40 C.F.R. § 300.415(a)(2) (noting "[w]here the responsible parties are known, an effort initially shall be made to the extent practicable to determine whether they can and will perform the necessary removal action promptly and properly").

¹⁸² U.S. EPA, *Guidance on CERCLA Section 106(a) Unilateral Administrative Orders for Remedial Design and Remedial Actions* (March 1990).

¹⁸³ U.S. EPA, *Memorandum on Enforcement First at Superfund Sites: Negotiation and Enforcement Strategies for Remedial Investigation / Feasibility Studies (RI/FS)* (Aug. 9, 2005) (Emphasis added).

any attempt to enter into a voluntary agreement with SGC.

There is nothing fair, transparent, reasonable, appropriate, or justified in EPA's actions. Without notice or opportunity to see if alternative approaches might better address the Bonita Peak area's environmental issues, EPA issued a UAO to SGC, an entity that has been nothing but cooperative, diligent, and successful in achieving Animas River water quality improvements.

APPENDIX C, D, E, F, G, AND H INDEX

APPENDIX C—EXPERT REPORTS

- C-1 Enviromin, *Expert Report in Response to Statement of Work, Unilateral Administrative Order of Remedial Investigation, Bonita Peak Mining District Superfund Site* (April 2018).
- C-2 SRK Consulting, *Review of EPA RI Order* (April 2018).
- C-3 Pioneer Technical Services, Inc., *Bonita Peak Mining District Superfund Site, CERCLA-08-2018-0005, Unilateral Administrative Order for Remedial Investigation* (April 2018).

APPENDIX D—CORRESPONDENCE

- D-1 Email from Douglas Naftz to Chris Stoneback, *Re: SGC UAO Discussion Items* (April 9, 2018).
- D-2 Letter from SGC to BLM and ARSG, *Re: Animas River Water Quality* (Oct. 4, 2011).
- D-3 Letter from SGC to Gina McCarthy, U.S. EPA Administrator, *Re: Ten Million Tendered for Animas* (Jan. 25, 2016).
- D-4 SGC and EPA, *Correspondence Regarding Sludge Repository* (2016).
- D-5 Letter from Westesen to Sisk, *Re: Sunnyside Gold Corporation Comments on Ill-Considered Proposals by EPA Personnel concerning Silverton, Colorado* (May 15, 2017).
- D-6 Letter from Westesen to Sisk, *Re: Sunnyside Gold Corporation Comments on Ill-Considered Proposals by EPA Personnel concerning Silverton, Colorado* (May 15, 2017) (supporting materials).
- D-7 Letter from Westesen to Sisk, *Re: Sunnyside Gold Corporation Response to General Notice* (Aug. 15, 2017).
- D-8 Letter from Westesen to Sisk, *Re: Transparency and Local Stakeholder Involvement in Decision-Making* (Sept. 8, 2017).
- D-9 Letter from Westesen to Sisk, *Re: EPA Action at the Clipper Mine* (Oct. 18, 2017).
- D-10 Letter from Stoneback to Naftz, *Re: Request for Information* (Oct. 30, 2017).
- D-11 Letter from Sisk to Westesen, *Re: EPA Action at the Clipper Mine* (Dec. 21, 2017).
- D-12 Letter from Westesen to Sisk, *Re: AOC Billing Statement or Expense Report* (Feb. 1, 2018).
- D-13 Letter from Westesen to Sisk, *Re: EPA Response to SGC October 18, 2017, Letter Concerning Clipper Mine and Information Requests* (Feb. 13, 2018).
- D-14 Letter from Westesen to Sisk, *Re: AOC Billing Statement or Expense Report* (March 1, 2018).

APPENDIX E—REPORTS

- E-1 *Executive Summary: SGC Mining and Reclamation Activities and Metals Loading in the Animas River* (Steven Lange, M.S., Senior Project Manager, Knight Piesold Consulting, Jan. 2018).

- E-2 *SGC Mining and Reclamation Activities and Metals Loading in the Animas River* (Steven Lange, M.S., Senior Project Manager, Knight Piesold Consulting, Jan. 2018).
- E-3 *The Engineered Concrete Bulkheads Installed by SGC* (Feb. 2018) (Exhibit A: Phillips Mining Geotechnical & Grouting Inc., *The American Tunnel Bulkhead Stability Analysis Report* (Feb. 2018)).
- E-4 *There is More Than Sufficient Knowledge to Tackle Bonita Peak Today and Improve Water Quality in the Animas River* (Feb. 2018)
- E-5 Pioneer Technical Services, Inc., *Technical and Engineering Considerations Summary Treatment Options for Mining-Influenced Water Upper Cement Creek, Bonita Peak Area* (Feb. 2018).
- E-6 William Perry Pendley, *Gold King: EPA's Two-Year Rolling Disaster and a Path Forward to Fix it* (July 27, 2017).

APPENDIX F—ADDITIONAL REFERENCED DOCUMENTS

- F-1 Allen Sorenson and Kirstin Brown, Colorado DRMS, *Memorandum Re: Design Basis for Water Impounding Concrete Bulkhead, Red and Bonita Mine, San Juan County Colorado* (May 18, 2015; updated September 17, 2015).
- F-2 Allen Sorenson, *Information On: Technical Revision TR-014 to the Sunnyside Mine Permit, which incorporates design details and impact characterization for installation of hydraulic seals within the underground workings into the reclamation permit*; Presentation to Mined Land Reclamation Board (Nov. 18, 1993).
- F-3 BLM, *Removal Action Decision, Non-Time Critical Removal Action, Lark Mine and Joe & John Mine* (April 2006) (with EPA concurrence).
- F-4 Deere & Ault Consultants, Inc., *Red and Bonita Mine Bulkhead Closure Evaluation 2017 Update; D&A Job No. CG-0628.001.00*, 5 (April 10, 2017).
- F-5 Deere & Ault Consultants, Inc., *Red and Bonita Mine Bulkhead Closure Evaluation; D&A Job No. CG-0628.001.00* (March 24, 2016).
- F-6 Email from Paula Schmittiel, EPA Remedial Project Manager, to Katherine Garufi, EPA Environmental Engineer, *Re: Upper Animas - BLM* (Aug. 17, 2015).
- F-7 Email from Ann Umphres, BLM Attorney, to Richard Sisk, EPA Attorney, *Re: American Tunnel* (Sept. 29, 2011) (addressing potential 104(e) request to BLM and the American Tunnel).
- F-8 Email from Richard Sisk, U.S. EPA, to Max Dodson, U.S. EPA, *Sunnyside Mine* (Nov. 1, 1995).
- F-9 Email from Rob Robinson, BLM Environmental Engineer, Sabrina Forrest, EPA Site Assessment Manager (Oct. 5, 2007).
- F-10 Formation Environmental, LLC, *Draft 2017 Investigation Summary and Data Interpretation Report Mayflower Tailings Impoundments Area* (March 2018).
- F-11 Formation Environmental, LLC, *Draft Aquatic Biota Baseline Ecological Risk Assessment, Mayflower Tailings Impoundments Area* (Jan. 2018).
- F-12 Letter from Camille M. Ferrell, Colorado Mined Land Reclamation Division, to Douglas S. Murray,

Sunnyside Gold Corporation, *Re: File No. M-77-378, Sunnyside Gold Corporation's "Sunnyside Mine" Amendment Adequacy Letter* (July 15, 1986).

- F-13 Letter from Jim Lovato, BLM, to Larry Perino, SGC (May 29, 1996).
- F-14 Letter from SGC to Howard Urband, U.S. EPA, *Re: EPA File No. CO5000-03745; 3rd Quarter 2001 Report (July-September) Rule Authorization Termination* (Oct. 22, 2001).
- F-15 Nash, J.T., *Geochemical Investigations and Interim Recommendations for Priority Abandoned Mine Sites on U.S.D.A. Forest Service Lands, Mineral Creek Watershed* (USGS 1999; Open-File Report 99-170).
- F-16 Photo of Eureka Gulch Access Road, *Eureka Road Just below the Terry Tunnel* (2018).
- F-17 Sabrina Forest, U.S. EPA, *Upper Animas Mining District Site Background and Activities* (Updated May 21, 2011).
- F-18 *Notes from the US Forest Service/EPA Region 8 Meeting* (Nov. 9, 1994).
- F-19 U.S. EPA and BLM, *Upper Animas Mining District Mixed Ownership Site Memorandum of Understanding* (Feb. 2013).
- F-20 U.S. EPA, *Analysis of the Transport and Fate of Metals Released from the Gold King Mine in the Animas and San Juan Rivers*, EPA/600/R-16/296 (January 2016).
- F-21 U.S. EPA, *Bonita Peak Mining District Innovative Technologies* (March 2018); available at: <https://semspub.epa.gov/work/08/100003642.pdf>.
- F-22 CDM Smith, *Gladstone Interim Water Treatment Plan Engineering Evaluation/Cost Analysis (EE/CA)*; prepared for U.S. EPA (Nov. 2016).

APPENDIX G—ADDITIONAL MATERIALS

- G-1 ARSG, *ARSG Timeline for Reducing Metal Loading in Upper Animas River Basin* (Sept. 29, 2014).
- G-2 U.S. Geological Survey, *Integrated Investigations of Environmental Effects of Historical Mining in the Animas River Watershed, San Juan County Colorado*, Professional Paper 1651 (Church, S.E., von Guerard, Paul, and Finger, S.E., eds. 2007).

APPENDIX H—CONSENT DECREE

- H-1 Consent Decree and Order, *Sunnyside Gold Corporation v. Colorado WQCD* (D. Colo. May 8, 1995) (Case No. 94 CV 5459).